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PROGRESS REPORT

ON

FOREST ADMINISTRATION

IN

LOWER BURMA

FOR

1890-91

BY MAJOR C. T BINGHAM AND P. J. CARTER, ESQ.,
OFFG. CONSERVATORS OF FORESTS.

WITH A REVIEW BY THE CHIEF COMMISSIONER, AND THE ORDERS OF THE GOVERNMENT OF INDIA.

RANGOON:

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA.

1891.

WARDED BY ORDER OF THE LIEUTENANT GOVERNOR OF BENGAL

No. 1223-F., dated Simla, the 31st October 1891.

From—J. W. P. MUIR-MACKENZIE, Esq., C.S., Offg. Secretary to the Government of India, Revenue and Agricultural Department,

To—The Chief Commissioner of Burma.

I AM directed to acknowledge the receipt of Mr. Kynoch's letter No. 290—69-M., dated the 18th August last, forwarding the Progress Report of Forest Administration in Lower Burma for the year 1890-91, together with your Resolution thereon.

2. Form No. 49 appended to the Report shows an extension of the area of Forest Reserves by 108 square miles, but of this 80 square miles are corrections only, consequent on more accurate surveys of the forest area. The additions due to new Forest Settlements, all of which took place in the Pegu Circle, amount to 28 square miles only. The slow progress in the constitution of Reserves is due to the scarcity of officers who can be spared for the work. Under these circumstances it is satisfactory to note that 369 square miles are under settlement and that the reservation of further areas is under consideration, facts which give promise of an improvement in the progress of reservation. The Government of India are aware that the same urgency as regards a final Forest Settlement does not exist in Burma generally as in a country where a dense agricultural population, with large pastoral requirements, presses on the boundaries of the State forest property and makes constantly increasing demands on its resources; but it would nevertheless appear that localities exist where reservation is urgently required, more especially in order to protect the important industry of cutch-boiling.

The Governor-General in Council has read, with some concern, the remarks regarding the rapid disappearance of the *Acacia catechu*, and not feeling satisfied that the step proposed of declaring it a reserved tree, of which however His Excellency in Council approves, will entirely meet the difficulties of the case, he considers it advisable that additional Reserves should be constituted in the cutch-growing areas of Burma. It is well known that reservation in these localities presents special difficulties; but, the question being one of great importance, the Government of India desire that the feasibility of such reservation should once more be fully considered.

3. The boundaries of existing Reserves are reported to be in good order, and no encroachments on the area of the State forest property seem to have taken place. The reports from both Circles show that the boundaries have been inspected and that the boundary-marks were repaired where necessary.

The Imperial Survey Department completed, during the year, 167 square miles of detailed survey on the 4-inch scale and 200 square miles on the 2-inch scale. In addition they executed a traverse-survey of about 200 square miles and some advance-triangulation. The cost of the work is estimated at Rs. 97,000, which compares favourably with the results of last year. The work in the forests was less frequently interrupted by sickness than in the previous season, though again some of the best men died from the effects of malaria, and others were invalided. It is reported that cholera broke out amongst the Survey Staff before they reached Rangoon. This is the second year that this epidemic is reported to have broken out on the departure of the staff from Calcutta, and the fact seems to deserve special notice and enquiry. The Superintendent of Forest-Surveys opened work in the Tenasserim Circle during the year under review. Up to the end of the season the traverse of about 132 square miles was completed, 80 square miles were in hand, and 30 square miles were partially triangulated. It is as yet too early to estimate the cost of the work; but, as far as experience goes, it would appear that in the dense forests of Burma a party cannot turn out, during the working season, more than half the work they would complete in India. The health of the establishment was good till the middle of February, but by the end of the season every member had contracted fever.

4. Considerable progress has been made in the Pegu Circle, which in this respect is far in advance of the Tenasserim Circle, as regards the introduction of regular Working-Plans based on detailed local enquiries. Regular Working-Plans, which are of vital importance in systematizing work, even in forests of gregarious species, are indispensable under the conditions existing in Burma, where they must aim at maintaining and improving the character of a mixed forest in regard to the few valuable species which are systematically extracted. It is an established and well known fact that this represents the most difficult problem of Indian forestry, especially as the results of forest work vary with the conditions of position, soil and climate; so that operations which are successful in one locality may fail to have the desired effect in another. It is only by constant observation, study and experiments that the forest administration can hope to control the working of mixed forests, embracing, as it must, the exploitation of teak only or sometimes of one or a few other valuable species in addition, in such a manner as to maintain the capital value of the property. It is observed that annual Plans-of-operations have been duly submitted by Divisional Officers. The deviations from sanctioned Working-Plans have been brought to the notice of the Local Government by the Inspector General of Forests. They are, however, in no case such as to require a reconstruction of the Plans, and therefore no further notice from the Government of India is here necessary.

5. The Report before the Government of India shows that but little progress was made in the opening out of the forests by the construction of roads or other means of communication. His Excellency in Council is aware that the bulk of the forest-produce is exported by the natural water-ways of the country, and that, in the absence of a more local demand, the want of roads is not felt to a very great extent; but it is nevertheless certain that there are forests in Burma the management of which would be beneficially influenced by the construction of cart-roads, which would bring produce nearer to the markets; and I am to say that under any circumstances greater attention should be paid to the improvement of river communication. During the year under review nothing was done in this respect in the Tenasserim Circle, and even in the Pegu Circle only Rs. 2,232 were spent on the improvement of floating streams, though it is obvious, from the note by the Deputy Commissioner of the Shwegyin District appended to the Report, that the obstructions which were complained of many years ago still exist in the lower reaches of the Beingdat and Yenwe streams. His Excellency in Council trusts that one of the results of the closer connection which has of late been established between the Forest and the general Civil Administration of the country may be that greater attention will be given to the establishment and maintenance of those river and road communications which link the forests to the main arteries of transport and trade.

6. The number of forest-offences prosecuted or compounded may be compared as follows with that of the previous year:—

Circle.	Number of new cases.			Percentage of convictions on total number of cases taken into Court.
	Taken into Court.	Compounded.	Total.	
Pegu	101	649	750	81
Tenasserim	149	51	200	94
Total in 1890-91 ...	250	700	950	89
" " 1889-90 ...	341	899	1,240	94
Decrease in 1890-91 ...	91	199	290	5

The fact that the number of cases brought to notice averages less than one for every 5 square miles of reserved forest under the management of the Department is worthy of record. By far the greater number of cases relate to thefts or unauthorized removals of forest-produce, and the Governor-General in Council desires to be informed in future Reports what proportion of such offences

occur outside the boundaries of the forest property in respect of forest-produce in transit.

7. Fire-protection during the year was not so successful as in 1889-90, which is ascribed to the unusual length of the dry season. The area subject to special protective measures aggregates as yet only 8 per cent. of that of reserved forests.

The Government of India are aware that a considerable extent of the forests are protected by their situation, but desire that an estimate should be made of the areas which, without protective measures, are subject to annual conflagrations; of those which are occasionally liable to be burned; and of those which are self-protected by their character or position. It is advisable that the information, however general at the outset, should be recorded in Divisional as well as Conservators' offices on skeleton maps, to be corrected and added to as additional information becomes available. These map-records will, in the opinion of the Government of India, be of great importance and utility, not merely as a basis of proposals for the future extension of fire-protection, but also as showing how such fire-protection can be carried out most effectively and in the cheapest manner by taking advantage of the natural barriers formed by self-protected forests.

His Excellency in Council has read with interest the remarks in the Report under review showing that the damage done by forest-fires to the more valuable species of trees is rarely of a permanent character. It is no doubt the case that, where undergrowth is absent or light, the teak tree, even at an early age, suffers no *visible* damage from a fire passing under it; but when such saplings or poles are surrounded by high grass, they are frequently destroyed down to the root, and even in the case of slight fires it is doubtful how far the timber may not thereby be predisposed to disease or to the attacks of insects or fungi. In view of these considerations the Governor-General in Council entirely approves of the measures you intend to adopt for the suppression of forest-fires, which, to an almost incredible extent, seem to be due to incendiarism or to criminal negligence on the part of taungya-cutters.

8. The danger of injury to the reserved forests in Lower Burma by cattle is so slight that it would require no notice but for the proposal made in paragraph 3 of your review. The Government of India would not object to the small financial sacrifice caused by the grant of free-grazing licenses by Forest Officers, but they desire that it may be fully considered whether the small grazing fee at present imposed does not protect the forests from a much larger influx of cattle and the consequent increased danger from forest fires. In this connection the fact must not be lost sight of that many of our reserves are for various reasons most valuable near the outer boundaries.

9. The remarks made in paragraph 22 of the Report of the Tenasserim Circle, in regard to natural reproduction, are no doubt true, but they are general, academical, and contain little that is not universally known; and it is a matter of regret that the Report gives no indication that this knowledge has been put to practical use, though it is evident that, where the exploitation is restricted to one or a few valuable species in a forest crop, special measures must be adopted to promote their reproduction and to foster the species, especially in the early stages of their existence.

It is observed with satisfaction that upwards of 11,000 acres have been treated with the above object in the Tharrawaddy Division, but it is not understood why the same activity should not have been displayed in other Divisions of the Pegu Circle, even in the absence of Working-Plans prescribing such operations.

10. Amongst sylvicultural operations in Lower Burma, the taungya plantations are doubtless the most important, and the addition of 2,629 acres made during the year raises their area to 22,235 acres. There can be no doubt that these forest improvements will in the future materially affect the "possibility" of the Lower Burma forests. Suppression of the young teak or cutch by weeds, bamboos and soft woods is the chief danger to which the taungyas are exposed, and it is of the greatest importance that they should be weeded until the young forest ceases to require such protection. Under these circumstances the Governor-General in Council approves of your orders that no larger area should

be planted in one locality than can be cleared by the labour which can be made available. The average cost per acre of the taungya plantations, varying from 1 to 18 years in age, amounts only to Rs. 13-4-1, a rate which, subject to the above noted restriction, would warrant their utmost extension.

11. The outturn during the year of forest-produce is exhibited in the following statement:—

Agency by which removed.	Timber.	Fuel.	Bamboos.	Other minor produce.
	C. ft.	*C. ft.*	No.	Value in Rs.
Reserved Forests.				
Government ...	1,062,033	...	...	...
Purchasers	534,230	255,937	2,213,605	30,818
Right-holders	18,900	...	31,950	163
Free-grants	...	...	...	...
Total ...	1,615 163	255,937	2,245,555	30,981
Unclassed Forests.				
Government ...	1,072,551	...	...	...
Purchasers	6,145 339	3,826,263	...	40,146
Right-holders	68,967	...	...	...
Free-grants	19,610	...	...	...
Total ...	7,306,467	3,826,263	†	40,146
Grand Total 1890-91 ...	8 921,630	4 082,200	2,245,555	71,127
" " 1889-90 ...	10,643 708	617,369*	2,229,510	1,60,201
Increase or decrease in 1890-91	—1,722,078	...	+16,045	—89,074

* Does not take account of the quantity of fire-wood used in the Tenasserim Circle.
† Value Rs. 5,619.

There has been a falling off in the extraction of teak of 18,031 tons, and the quality of the wood brought to Moulmein was of an inferior description. The outturn of other reserved trees was 3,099 tons in excess of the previous year, and His Excellency in Council follows with great interest the efforts which are being made to bring the pyinma wood on to the market. No attention has been paid by the Conservator of the Tenasserim Circle to the request of the Government of India, made in last year's review, that the amount of fuel removed by purchasers should be estimated.

The serious falling off in the cutch industry has already been noticed, but the Government of India take once more the opportunity of recommending the establishment of compact cutch-reserves throughout the province as the safest means to prevent a collapse of this important trade.

12. The financial results as compared with the preceding year, and with the average of the last five years, are exhibited in the following table:—

Circle.	Receipts.	Charges.	Surplus.	Proportion of Surplus to Gross Revenue.
	Rs.	Rs.	Rs.	Per cent.
Pegu	21,03,322	7,04 423	13,98,899	67
Tenasserim	5 74,349	3,31,694	2,42,655	42
Total in 1890-91	26,77,671	10,36,117	16,41 554	61
" 1889-90	31,34,716	13,32,844	18,01,872	57
Increase or decrease in 1890-91	—4,57,045	—2,96,727	—1,60,318	+ 4
Average for 5 years ending 1889-90.	23,97,089	11,64,853	12,32,236	51

The results, though showing a decrease from the exceptionally favourable financial record of the previous year, which as in Upper Burma was due to the exceptional facilities for floating, compare very favourably with the average of the last five years, and show a net surplus of Rs. 16,41,554 against an average of Rs. 12,32,236.

13. The quantity of teak exported from Burma was above the average of the last five years. The export from Moulmein has declined, more especially as regards the direct trade with Europe, and it is still more to be regretted that some of the parcels shipped from that port were not of sufficient quality to maintain the high character of Moulmein teak. The shipments for the Europe market sent from Rangoon were all of good quality, but the market was and is still in a weak state, owing to the large quantity of inferior teak, shipped from Bankok, which is sold at any price it will fetch. It is believed, however, that these shipments of inferior timber from Bankok almost invariably result in loss; and, if this be the case, the disturbing element will soon disappear.

14. His Excellency the Governor General in Council has observed with satisfaction that once more you have been able to record your appreciation of the good services rendered by the Forest Department, and I am to convey the thanks of the Government of India for the successful administration of the forests of Lower Burma, and for your able and appropriate review.

Discrepancies noticed in the Lower Burma Forest Administration Report for 1890-91.

Tenasserim Circle.—In the statement at paragraph 53 of the Report, the outturn by Government agency and by purchasers is entered as 14,805 tons and 22,414 tons respectively, whereas according to Form No. 54 the outturn by these agencies was 15,050 tons and 22,413 tons respectively.

Pegu Circle.—In Form No. 49, the total area free of taungya privileges on the 1st April 1890 is shown as 2,121,523 acres (3,315 square miles), whereas according to the Report for 1889-90 the area of these tracts on the 31st March 1890 was 2,140,723 acres (3,344 square miles).

Similarly, the total of Karen areas on the 1st April 1890 is shown as 287,206 acres (449 square miles), while according to the Report for 1889-90 these areas aggregated, on the 31st March 1890, 268,006 acres (418 square miles.

[K. C. M.]

G. C. Press, Simla.—No. 1210 R & A. D.—10-11-91.—175.

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BENGAL SECRETARIAT LIBRARY

RESOLUTION

ON THE

FOREST ADMINISTRATION REPORT

OF

LOWER BURMA

For the year 1890-91.

Extract from the Proceedings of the Chief Commissioner, Burma, in the Forest Department,—No. 69M. dated the 12th August 1891.

READ—

Reports of Conservators on the administration of the forests of the Tenasserim and Pegu circles for the year 1890-91.

RESOLUTION.—The Chief Commissioner acknowledges the punctuality with which both reports were received in the Secretariat on the prescribed date, the 15th June. Appended to the report are the remarks of Commissioners and Deputy Commissioners, through whom, in accordance with recent orders, the reports of Divisional Officers were submitted.

GENERAL RESULTS.

1. The general results of the work of the year were as follows. An addition of 28 square miles was made in the area of reserved forests, which now amounts to 5,603 square miles. Fire-protection was successful over 235,539 acres compared with 239,361 acres in 1889-90. The area of taungya grounds planted with teak amounted at the close of the year to 22,235 acres, or 2,629 acres more than in the previous year. The number of teak trees girdled was 17,040, or 2,393 trees less than in 1889-90. A number of pyinma and padauk trees were also girdled. The quantity of teak extracted by all agencies from the forests was 61,434 tons, or 18,031 tons less than in the year before. The gross revenue of both circles for the year was Rs. 26,77,671 compared with Rs. 31,34,716 in 1889-90 and the expenditure was Rs. 10,36,116 against Rs. 12,78,583 in that year. The net revenue of the year was thus Rs. 16,41,555, or Rs. 2,14,578 less than in 1889-90.

RESERVATION OF FORESTS.

2. In the Tenasserim circle no new areas were added to the area of 1,811 square miles of reserves existing at the close of 1889-90. Several small areas, aggregating 28 square miles, were added to the reserves of the Pegu circle and the area of an already formed reserve was rectified by an increase of 80 acres. The total area of the reserves in the circle at the close of 1890-91 was therefore 3,792 square miles. Settlement operations connected with seven other proposed reserves, representing an estimated area of 369 square miles, were more or less advanced and proposals for the reservation of further areas are under consideration. The work of forest-reservation is delayed by the scarcity of officers available for settlement duty. Reference was made in the Chief Commissioner's Resolution on the Lower Burma Forest Report for 1889-90 to the rapidity with which the cutch tree is disappearing from the localities where it is found in consequence of the reckless destruction of young trees by firewood contractors

and by taungya-cultivators in clearing patches of ground for their crops. The question of the protection of cutch was further considered during the year under review and local officers were consulted as to the expediency of declaring cutch a reserved tree. There is a general consensus of opinion amongst the officers consulted that cutch has almost disappeared from localities in which it was once plentiful and that the only means of preventing its entire extermination outside reserves is to reserve it. It has accordingly been decided to notify cutch as a reserved tree in the greater part if not the whole of Lower Burma. Kanyin, a tree from which wood-oil is derived and which is also worked to a considerable extent to furnish planks for tea-boxes, was declared a reserved tree in the Tenasserim circle in the year under review.

Fees in reserves.

3. In their remarks on the report of the Tharrawaddy division the Deputy Commissioner of Tharrawaddy and the Commissioner of Pegu suggest that the practice of charging fees for permitting cattle to be grazed in reserves and for the collection of certain minor kinds of forest produce in reserves should be abandoned on the ground that annoyance is caused to the people, while the revenue realized is insignificant. It is no doubt inexpedient in the interests of forest conservation to permit the grazing of cattle and the collection of produce in forests except under licenses granted by Forest Officers; but it is a matter for consideration whether free licenses should not be granted for grazing cattle and for collecting such kinds of produce as thatch and cheroot leaves, which appear to be collected in small quantities for purely local consumption and which yielded in 1890-91 a revenue of a few rupees only. The Conservator is requested to favour the Chief Commissioner with his opinion on the subject.

Forest survey.

4. The Topographical Survey party in the Pegu circle were employed in the Prome and Toungoo divisions. The detail survey was completed of about 167 square miles on the 4-inch scale inside reserves in the Toungoo district, including 41 square miles of Karen area, and of about 200 square miles on the 2-inch scale outside reserves in the Prome district. The traverse survey of about 200 square miles inside the Bôndaung and Pyuchaung reserves in the Toungoo district was also finished, and some triangulation work was done. Forest survey operations were commenced in the Tenasserim circle on the 1st January 1891 under the personal direction of the Superintendent of Forest Surveys. A report by the local Forest Officer in charge of the work is printed at page 20 of the present report. The traverse survey of about 132 miles inside reserves was completed, and about 80 square miles were fully and 30 square miles partly triangulated. In its orders on the Forest Report of 1889-90 the Government of India called attention to the importance of employing local labour on forest survey work. These orders were kept in view and in 1890-91 local labour was employed as far as possible. But the nature of the localities under survey, which consist of uninhabited forest tracts on the borders of Siam, renders it difficult to obtain local men and Burman surveyors, who work well in the plains, can rarely be induced to accept employment in remote and mountainous parts.

WORKING PLANS.

5. The working plan of the Taungnyo forest in the Tharrawaddy district was approved by the Inspector-General of Forests towards the close of the year

and has since, after the correction of sundry inaccuracies, been sanctioned by the Chief Commissioner. Considerable progress was also made in the preparation of materials for working plans of the Shwebo and Nawin forests in the Prome division. The annual plans of operations required by paragraph 62 of the Forest Department Code were submitted by Divisional Officers and the Conservator reports that as a whole they were well acted up to.

Offences against Forest Rules.

6. In the Tenasserim circle 200 cases of breach of forest rules implicating 277 persons were disposed of and out of 149 of these cases tried by a Magistrate convictions were obtained in 140 cases against 172 persons. The remaining 51 cases were compounded for Rs. 1,096, none of them being of serious importance. In 1889-90 188 offences resulting in 180 convictions were tried by Magistrates. The results of 1890-91 on the whole were good, but it is observed that in the South Tenasserim division out of 40 persons prosecuted only 28 were convicted. Greater care should be exercised in this division in instituting prosecutions. In the Kado division the number of cases fell from 251 to 137, a decrease of almost one-half. An explanation should have been given of this decrease, which suggests the inference that some change has taken place in the system of administering the division. In the Pegu circle, out of 94 cases tried against 110 persons, convictions were got in 76 cases against 92 persons compared with 148 cases in 1889-90 involving 260 persons, of whom 225 were convicted. A large number of ordinary cases were compounded for Rs. 10,723, a very substantial amount, and Rs. 2,155 more than was recovered under the same head in the year before. More care should be exercised in the Thayetmyo division by Forest Officers and Magistrates in instituting and trying forest cases.

Fire-protection.

7. In neither circle were such good results secured from the arrangements made for the protection of forests and plantations against fire as in the preceding year. The reason assigned is the unusual prolongation of the dry weather, due to the early cessation of the rains in 1890 and their late commencement in 1891. The comparative results of the fire-protective measures of the two years were as follows:—

Circle.	Area in square miles.			Proportion of failures to area attempted.	Cost.		Proportion of area under fire-protection to total area of reserves (excluding taungyas).
	Attempted.	Failures.	Protected.		Per square mile protected.	Per acre protected.	
				Per cent.	Rs. A. P.	Rs. A. P.	Per cent.
Pegu	316	62	254	19·62	67 9 8	0 1 8	7·60
Tenasserim	131	17	114	12·98	57 2 0	0 1 5	6·84
Total in 1890-91 ...	447	79	368	17·67	64 5 5	0 1 7	7·16
Total in 1889-90 ...	879	5	874	1·29	51 10 0	0 1 3	7·27
Increase or decrease in 1890-91.	+ 68	+ 74	— 6	+16·38	+12 11 5	+ 0 0 4	— ·11

Tenasserim circle.

8. In the Attaran division of the Tenasserim circle two fires occurred, doing fortunately but little damage. In cases like that in the Natchaung reserve, in which the fire is ascribed

to incendiarism by neighbouring villagers, the provisions of section 14 of the Burma Villages Act should be put in force if there is reason to believe that the villagers are suppressing evidence. The West Salween division suffered a good deal, but the resulting damage is reported to be serious in one case only. The arrangement by which the Divisional Officer of the Attaran division also controls the West Salween division is not satisfactory. The latter cannot receive adequate attention, the only responsible executive officer on the spot being a Native probationary Sub-Assistant Conservator. Proposals are now under consideration for re-arranging the Tenasserim forest circle in such a manner as to, among other things, provide the West Salween division with a sufficient staff. The fire-protective measures in the East Salween division were successful, nearly the entire area having been saved. The Chief Commissioner observes with satisfaction that the villagers gave willing aid when fires broke out and the safety of the forests was no doubt to a great extent due to their help. Divisional Officers cannot make it too widely known that rewards will be paid by Government for all assistance given in putting out forest fires. The amount given in East Salween last season—Rs. 20—was much too small if the account given of the assistance rendered by villagers is correct. Further, in all cases in which a fire which may reasonably be ascribed to incendiarism occurs a liberal reward should be offered for the conviction of the offender. The entire outlay in Tenasserim on fire-protection for the year was Rs. 6,512, or 1 anna 5 pies per acre, the area protected being 73,270 acres.

Pegu circle.

9. In the Pegu circle only 80 per cent. of the area attempted to be protected escaped fire compared with 98 per cent. in 1889-90, the area actually saved being 6,403 acres more than was saved in that year. The greater number of the fires were caused either by wilful mischief or by the carelessness of the Karen taungya-cutters in or near the reserves. In this year, as in last, the Tharrawaddy reserves suffered considerably. In last year's Resolution the Conservator was asked to devise, if possible, special protective measures in this division. The Chief Commissioner will be glad to learn what action has been taken in this direction. The subject is not referred to in the Conservator's report. The area successfully guarded from fire in the Pegu circle during the year amounted to 162,269 acres out of 202,297 acres at a cost per acre of 1 anna 8 pies. In the majority of the cases where fires occur the damage is seldom so severe as to be permanent in its character, or such that it is not effaced in the course of one or two succeeding rainy seasons. The remarks made in the foregoing paragraph as to the grant of liberal rewards to villagers who assist in extinguishing fires, as to the proclamation of rewards for the conviction of incendiaries, and as to the punishment of villages which suppress evidence against incendiaries apply to the Pegu equally with the Tenasserim circle.

Reproduction and Improvement of Forest Growth.

10. No new teak plantations were formed in Tenasserim during the year. In the Pegu circle 17 acres were added to the plantation at Magayi at a cost of Rs. 15-15-0 per acre, further clearing operations which were in progress being put a stop to by the early setting in of the rains in 1890. The work will be completed, it is hoped, during the rains of 1891.

Taungya teak plantations.

11. In the Tenasserim circle 1,136 acres were added to the teak area planted by the taungya process at a cost of Rs. 6-9-6 an acre. In some parts the work was highly successful, in others it partially failed owing to the soil being unsuitable. The total area under taungya teak plantations in the circle is now 6,762 acres. In Pegu 1,366 acres were successfully planted with teak only, 13 acres with cutch, and 114 acres with teak and cutch together, at an average cost per acre of Rs. 9-1-1. Care has to be taken not to plant larger areas than labour can be procured to weed during the rainy weather, when much damage is apt to be done to the young plants by creepers, &c., if weeding is neglected. The taungya teak plantations in the Pegu circle now represent 13,681 acres of pure teak, 55 acres of cutch, and 1,729 acres of teak and cutch mingled.

Girdling Operations.

12. In the Tenasserim circle 891 teak trees, 2,000 pyinma, and 250 padauk trees were girdled. Girdlings of teak in the Pegu circle consisted of 5,952 trees inside and 10,197 trees outside reserved forests out of a proposed girdling of 7,561 trees inside and of 12,350 trees outside reserves.

Timber worked out of the Forests.

13. The following quantities of timber of all kinds, including teak, were worked out of the forests during the year :—

	Teak.	Other kinds.	Total.
	Tons.	Tons.	Tons.
By Government agency	38,525	3,921	42,446
By purchasers and under trade permits	21,228	112,365	133,593
Under free permits	157	235	392
By leaseholders of forests	1,524	233	1,757
Total ...	61,434	116,754	178,188
Total for 1889-90 ...	79,465	133,408	212,873
Increase or decrease in 1890-91 ...	— 18,031	— 16,654	— 34,685

The quantity of teak worked out from forests in the Tenasserim circle was 12,656 tons, or 2,326 tons less than in 1889-90. The greater portion of this timber is described as "inferior, hollow, and crooked." Between 7,000 and 8,000 more logs were in transit from the forests when the year closed. Of other sorts of timber 7,410 tons of reserved and 19,020 tons of unreserved kinds were extracted, or 413 tons more and 3,000 tons less respectively than in 1889-90. The increase in the extraction of timber of the reserved kinds other than teak was due to larger extractions of pyinma. Pyinma is a valuable wood, which is believed to be peculiarly well adapted for conversion into railway sleepers and shingles. Hitherto it has been little known and the trade in it has been small. Efforts are now being made to bring its good qualities prominently before the timber-trading public and to open up a market for it. If these efforts are successful, a valuable source of revenue will have been obtained as the supply of pyinma is plentiful in the Tenasserim division. In the Pegu circle 48,778 tons of teak were worked out, or 15,705 tons less than in 1889-90. Of other reserved sorts of timber 4,493 tons were worked out (the bulk of it being kanyin timber), being an increase of 2,686 tons on the outturn of the previous year. Purchasers of unreserved timber extracted 85,830 tons com-

pared with 102,584 tons in 1889-90. The decrease in the outturn of teak as compared with that of 1889-90 was due to smaller extractions on Government account. The principal diminution took place in extractions of teak outside reserves in the Tharrawaddy division. The amount extracted fell from 20,670 tons in 1889-90 to 4,060 tons in 1890-91. The reason of this large diminution is that the greater part of the teak outside reserves in the Tharrawaddy district has been worked out. This teak consists principally of single trees or clumps of two or three trees standing in paddy-fields. Some years ago it was decided to work out all such teak as was marketable. The greater part had been worked out by the end of 1889-90 and little remained to be extracted in 1890-91. Extractions by purchasers and under trade permits rose from 15,002 to 21,225 tons. This increase was mainly due to large extractions in the Toungoo district, in which, as was explained in the Resolution on last year's report, certain forests are worked on the contract system.

Miscellaneous forest produce.

14. The principal item under this head is cutch. As was anticipated last year there was a large decrease in the outturn of cutch both from reserved and unreserved forests, with the result that the revenue from this source declined by about Rs. 90,000 in 1890-91. As has been remarked in an earlier part of this review supplies of cutch have been practically exhausted in unreserved forests and it is to be expected that the revenue from this source will continue to decline.

Receipts from minor forest produce, excluding cutch, are insignificant. From various circumstances which have come to his notice the Chief Commissioner believes that the revenue from this source is susceptible of considerable development. Various kinds of produce, such as cardamoms, bamboos, canes, fibres of various kinds, &c., which are regularly extracted for trade purposes, have hitherto been extracted from the forests without payment, except in the case of reserved forests, of any fee. It is a principle of forest administration that produce extracted from forests for trade purposes should be taxed. The question of levying fees on various kinds of produce, at present untaxed, to which this principle applies, is now under consideration.

Revenue and Expenditure.

15. The gross forest revenue realized in Lower Burma during the year was Rs. 26,77,671 as against Rs. 31,34,716 in 1889-90, when it was, however, exceptionally high. The revenue of 1888-89 was Rs. 26,09,305 and of 1887-88 Rs. 22,18,897. The details of the figures for the two past years are as follows:—

		1889-90.	1890-91.	Increase. or decrease.
		Rs.	Rs.	Rs
From timber and other produce removed from the forests by Government agency.		21,18,603	16,02,580	— 5,16,023
From timber and other produce removed from the forests by consumers or purchasers.	Timber	5,08,521	6,45,680	+ 1,37,109
	Firewood and charcoal ...	24,848	21,152	— 3,696
	Bamboos	5,424	5,541	+ 117
	Grazing and fodder grass...	219	252	+ 33
	Other minor produce ...	1,59,402	74,557	— 84,845
Confiscated drift and waif wood		1,27,663	1,09,757	— 17,906
Duty on foreign timber and other forest produce		1,39,014	1,85,539	+ 46,525
Miscellaneous		51,022	32,663	— 18,359
	Total ...	31,34,716	26,77,671	— 4,57,045

The teak market at Moulmein was in an unsatisfactory state throughout the year, the average value of timber being Rs. 17-5-0 a ton compared with Rs. 23-14-9 a ton for timber of the same quality in the year before. This decrease was a result of the fall in price in the home markets. The effect in Tenasserim was to reduce the revenue from timber worked out by Government from Rs. 4,45,884 in 1889-90 to Rs. 2,65,064 in 1890-91. The decline in prices affected other sources of revenue, such as fees for the registration of hammer-marks, for which there was much less demand, while the increase of Rs. 46,525 in duty on foreign timber at Kado was unfortunately not due to activity in trade, but to holders of timber being compelled to sell to obtain money for their requirements. The question of the effect of the enhancement of the Kado duty on the Moulmein timber trade continues to receive attention. As the Commissioner observes in his remarks on the report of the Kado division the full effect of the increased duty will not be apparent till all the timber has been brought down which was purchased at a time when the duty amounted to ½ per cent. only. The gross revenue of the Pegu circle was Rs. 21,03,322 compared with Rs. 24,01,158 in 1889-90, and this amount will be reduced by about half-a-lakh of rupees when the departmental share of the cost of forest surveys in the circle for the year is brought to account. The falling off took place in timber extracted by Government agency and in minor produce, while there was an increase in receipts from timber removed by purchasers and consumers. This increase was due, as has been already explained, to large extractions of timber in the Toungoo division. The falling off in the revenue from minor forest produce was due to a decline in receipts from cutch. The decrease in receipts from timber extracted by Government agency was, as in Moulmein, a result of the dull state of the market at home, poor prices being got at the Government timber sales in Rangoon. The expenditure in both circles for the year amounted to Rs. 10,36,117, or Rs. 3,31,694 in Tenasserim compared with Rs. 3,73,311 in 1889-90, and Rs. 7,04,423 in Pegu compared with Rs. 9,05,272 in 1889-90. In the Tenasserim expenditure is included a sum of Rs. 12,031, on account of the Forest Survey party referred to in paragraph 4, and in both circles the expenditure includes the amount of the local allowances recently sanctioned for Forest Officers in Burma. Notwithstanding the various drawbacks to the prosperity of the year the total net surplus of the two circles was Rs. 16,41,554, or Rs. 1,86,554 more than was estimated. The Pegu survey charges have, however, to be provided from this surplus as mentioned above. But the final result cannot be regarded as unsatisfactory. In recent months there has been an improvement in the home market and since March 1891 the prices obtained at the Rangoon auction sales have been considerably above the average of 1890-91.

IMPORTS AND EXPORTS OF TEAK.

16. The quantity of teak timber imported by the river Salween and entered at Kado revenue station during the year was 102,363 tons, or 3,466 tons more than the quantity imported in the previous year and 33,392 tons less than in 1888-89. About one-fifth of the quantity was timber of poor size and inferior quality. It is estimated that 117,752 tons of teak were imported into Lower Burma by the Irrawaddy and Sittang rivers during the year compared with 125,332 tons in 1889-90.

The quantity of teak exported from Moulmein and Rangoon in each of the past five years was as follows:—

Year.	From Moulmein.		From Rangoon.		Total.		
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Average value per ton.
		Rs.		Rs.		Rs.	Rs.
1886-87 ...	96,600	62,84,972	46,734	34,66,561	143,334	97,01,533	67 7
1887-88 ...	116,507	79,54,812	52,417	36,99,610	168,924	1,16,54,422	69 0
1888-89 ...	93,465	77,21,819	62,969	48,99,547	156,434	1,26,21,366	80 7
1889-90 ...	80,871	70,05,857	103,560	81,84,843	184,431	1,51,90,700	82·4
1890-91 ...	64,227	47,01,434	110,888	78,75,794	175,115	1,25,77,228	71·8

The exports of teak from Moulmein to Europe declined seriously, being 7,877 tons only against 25,462 tons in the previous year. To Indian ports 52,157 tons were shipped, being 3,009 tons more than in 1889-90 and to other parts of the world 4,193 tons. The continued expansion of the Rangoon trade no doubt takes place to some extent at the expense of the trade of Moulmein. Of the total exports of teak from Rangoon 76 per cent. went to Indian ports and the balance to Europe, Egypt, Canada, Japan, &c.

Services of officers.

17. The Chief Commissioner's acknowledgments are due to Messrs. Popert and Carter, to Major Bingham, and to the officers serving under them, for the efficient administration of the forests during 1890-91.

By order of the Chief Commissioner,

C. G. BAYNE,

Secretary.

REPORT

ON

FOREST ADMINISTRATION

IN

THE TENASSERIM CIRCLE

For the year 1890-91,

BY

MAJOR C. T. BINGHAM, OFFG. CONSERVATOR OF FORESTS.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

No increase to reserved forests.

1. No addition was made to the area of reserved forests, which remains as before at 1,811 square miles.

Final demarcation of the Kyakatchaung reserve completed.

2. The final demarcation of the Kyakatchaung reserve, area 18 square miles, in the Shwegyin district, was completed at a total cost of Rs. 231. A blazed line was cut along the boundaries and 510 boards nailed up on trees at intervals of about 100 yards each.

Reservation of the proposed five padauk reserves still pending.

3. By Notification No. 36 (Forests), dated the 26th May 1890, the Deputy Commissioner, Amherst district, was appointed Forest Settlement Officer to the proposed five padauk reserves on the Haungtharaw river, the demarcation of which was pending at the close of 1889-90. Nothing further, however, has been done as the Deputy Commissioner has not yet had time to visit the forests in question.

2.—Boundaries.

Attaran Division.

Inspection of boundaries and repairs.

4. All the reserves are reported to have been visited and the boundary marks, as far as observed, to be in good order. One boundary board only in the Kyunchaung reserve was renewed.

West Salween Division.

The boundaries of all reserves except those mentioned below are reported in good order:

(*a*) The boundaries of the Upper and Lower Methalauk and Dagwin reserves have not been visited since 1888, when 58 boards in all were reported deficient.

(*b*) The Pachaung reserve boundaries were visited last in 1887, when 81 boundary boards were reported as missing. Nothing has as yet been done to renew the boundary boards in the above reserves.

East Salween Division.

Boundaries of reserves are reported to have been partially inspected and the boundary boards to have been found in fair order. Rupees 37-8-0 were expended in minor repairs in renewing boundary boards and Rs. 164-8-0 in clearing traverse lines along and near boundaries for the survey party.

South Tenasserim Division.

Boundaries of reserves are reported generally in fair order. Rupees 26 were spent on the necessary repairs and renewals of boundary boards.

CHAPTER II.

SURVEYS, WORKING PLANS, AND ANNUAL PLANS OF OPERATION.

1.—Surveys and Exploration of Forests.

Forest survey in the Mepalè reserves, East Salween division.

5. A party of the Forest Survey, having, under the orders of the Government of India, been detailed for work in the Tenasserim circle, arrived at Moulmein on the 18th December 1890 and commenced work in the Mepalè reserves of the East Salween division on the 1st January 1891. Copy of the report on the work done during the season submitted by Mr. T. A. Hauxwell, Deputy Conservator of Forests and officer in charge Tenasserim Forest Survey, is appended.

In the East Salween division also proposals are being prepared for the inclusion within the boundaries of existing reserves certain teak-bearing tracts which for various reasons were excluded when the reserves were originally proposed.

Report on the outlying-teak tracts, Attaran Valley.

6. In the Attaran division Mr. M. H. Ferrars, Deputy Conservator of Forests in charge, submitted a report on the outlying teak tracts in the Attaran Valley, and the report was forwarded with an expression of opinion that it would be unadvisable to undertake operations in paddy-field teak extraction in so sparsely populated a district as that of the Attaran Valley. The preparation of further proposals for reserving certain teak-bearing tracts in the division were pending at the close of the year.

Exploration of the forests at sources of the Lenyachaung.

7. In the South Tenasserim division the Sub-Assistant Conservator of Forests in charge explored the forests at the sources of the Lenyachaung, but no valuable woods in any quantity were found, hence no proposals for further reservation in the division submitted.

2.—Working Plans.

Existing working plans adhered to.

8. The provisions of the rough working plans for the East and West Salween divisions have been adhered to as far as possible.

3.—Annual Plans of Operations.

Annual plans of operations.

9. All Divisional Officers submitted plans of operations which have generally been worked up to. The chief exceptions are noted under the respective heads and explanations and details given.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—Establishment.

Transfer of Mr. McHarg, Assistant Conservator of Forests.

10. By Notification No. 195 (Forests), dated the 13th November 1890, Mr. W. T. T. McHarg, Assistant Conservator of Forests, was transferred from the Pegu to the Tenasserim circle. He reported his arrival on the 4th December 1890 and was posted to the charge of the East Salween division *vice* Mr. T. A.

Hauxwell, Deputy Conservator of Forests, whose services were placed temporarily at the disposal of the Superintendent, Forest Surveys.

11. The distribution and cost of the permanent and temporary establishment is shown below:

Division.	1889-90.		1890-91.			
	Cost of permanent establishment.	Cost of temporary establishment.	Sanctioned permanent establishment.	Sanctioned temporary establishment.	Actual cost of permanent establishment.	Actual cost of temporary establishment.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Attaran and Agency ...	10,459	2,150	11,865	5,487	11,621	4,574
East Salween ...	8,121	822	4,458	984	2,830	748
West Salween ...	2,271	808	2,718	824	1,507	812
Kado	13,461	11,827	13,583	12,161	13,861	10,895
South Tenasserim ...	4,188	240	4,666	300	4,206	295
Total ...	38,500	14,847	37,242	19,256	33,525	16,824

2.—*General Protection and Breaches of Forest Laws.*

Prosecutions for breaches of forest laws.

12. During the year 200 breaches of forest rules, involving 277 persons, were settled as follows:

(*a*) *Before Magistrates.*—One hundred and forty-nine cases, involving 187 persons, in which 140 convictions were obtained, against 172 persons, or more than 94 per cent. of convictions.

(*b*) *Compounded by Divisional Officers.*—Fifty-one cases, involving 90 men, for Rs. 1,096 in all. The amount paid to informers under Rule 44 was Rs. 52-8-0. One case in the East Salween division, in which a Police Head Constable was implicated, fell through on account of the death of the chief defendant. One case was pending at the close of the year.

3.—*Fire-protection.*

General results of fire-protection.

13. Owing to the early cessation of the rains and the prolonged hot weather that followed fire-protection has been only moderately successful this year. Out of a total of 83,898 acres attempted to be protected 10,628 acres were burnt. The cost of fire-protection amounted to Rs. 6,512, or 1 anna 5 pies per acre actually protected.

Fire-protection in the Attaran division.

14. In the Attaran division a complete block of 300 acres was substituted for the 151 acres disseminated over several blocks fire-traced in the Dali reserve in previous years.

In the Thinganny̆inaung reserve the fire-traced area was increased to 250 acres. The villagers in the Gôngyi reserve having migrated, the Divisional Officer reports that the 17 acres of plantations fire-traced last year were abandoned and not fire-traced this year.

Two fires occurred. The 1,800 acres fire-traced in the Natchaung reserve including the plantations, were burnt through. The damage done, however, is reported as slight. The fire is ascribed to incendiarism, the neighbouring villagers of Natchaung being ill-disposed towards the forest officials. The second fire occurred in the Kyunchaung reserve, crossing over a boundary of dense evergreen forest hitherto deemed impervious to fire. No damage was done, 10 acres of ordinary forest being burnt.

The cost of fire-protection was 1 anna 9 pies nearly per acre successfully protected.

Fire-protection in the West Salween division.

15. In the West Salween division all the reserves, with the exception of the Wamu reserve, have suffered from fire. In all 19 fires occurred, the majority of them being fires that crossed from outside over fire-traces, blown by the high winds that prevailed in March and April. The damage done is reported in all but one instance to be slight.

In the Bilakatkyi reserve, in one fire 900 acres of forest, including 750 acres of plantations, were burnt and serious damage done, the terminal shoots of the teak plants being badly scorched. The cost of fire-protection came to a fraction over 1 anna 3 pies per acre successfully protected.

Fire-protection in the East Salween division.

16. In the East Salween division, out of the 33,280 acres attempted to be protected, fire-protection was successful over 33,177 acres at a cost of 1 anna 6 pies per acre. The nine fires which occurred burnt over 79·5 acres of ordinary forest and 23·5 acres of plantations. The damage done to the latter is reported to be slight. Most of the fires were due to the carelessness of taungya-cutters inside reserves. One fire has been traced to an incendiary in the person of the lately discharged ranger, who at the date of writing this report was under trial for the offence.

It is satisfactory to report that whenever fires occurred the inhabitants of neighbouring villages turned out readily and gave most efficient help in extinguishing them. A sum of Rs. 20 was disbursed in rewards.

17. The area of forests and plantations burnt over compared with last year is given below :

Division.	Reserve.	Area fire-traced in acres.		Area over which fire spread.			
		1889-90.	1890-91.	1889-90.	1890-91.		
				Total.	Total.	Of forests.	Of plantations.
Attaran	Dali	151	800	...	...	...	...
	Natchaung	1,800	1,800	...	1,800	1,550	250
	Gòngyi	17	...	...	...	...	...
	Kyunchaung ...	7,600	7,600	...	10	10	...
	Thingannyinaung ...	4	250	...	...	...	...
West Salween	Wamu	1,920	1,920	...	...	...	...
	Singzè	8,960	8,960	...	968	928	40
	Kahilu	2,560	2,560	...	24	24	...
	Mèwaing	7,360	7,360	...	8	...	8
	Minanwè	3,840	3,840	...	50	50	...
	Ônkangyi	6,300	6,300	25	964	796	168
	Bilakatkyi	6,656	6,656	...	6,256	5,864	392
	Tagèlaung	3,072	3,072	...	450	410	40
East Salween	West Mepalè ...	25,600	25,600	...	98	69·5	28·5
	Mithawe	7,680	7,680	...	10	10	...
	Total ...	83,520	83,898	25	10,628	9,711·5	916·5

Inspection of plantations burnt in 1890.

18. The 15 acres of plantations burnt last year were inspected and the teak plants found to have suffered no damage.

Fire-record maps.

19. Fire-record maps in accordance with the instructions conveyed in Inspector-General of Forests' Circular No. 5, dated the 14th July 1887, have again been kept up for the West Mepalè reserve.

Unburnt areas not specially protected.

20. In addition to the specially protected areas the Yè reserve, of 202,880 acres in the Attaran division, and the Kalinaung, Mintha, and Ngawun reserves, aggregating a total of 550,400 acres, in the South Tenasserim division, are all reported to have escaped fire.

4.—*Grazing.*

Grazing.

21. The right of grazing elephants in the Metkanè reserve of the East Salween division has been again exercised during the past year.

5.—*Natural Reproduction.*

Natural reproduction of teak.

22. Not much can be added to what was recorded under this head last year.

In the East Salween division the plague of small caterpillars that devastated the leaves of the teak throughout the whole of the teak-producing area of the Thaungyin valley has not this year appeared.

Writing of natural reproduction in the West Salween divisional report, Mr. M. H. Ferrars, Deputy Conservator of Forests, says: "It may again be "emphasized that the prescription of a limit of girth under which trees may be "felled under trade permits assumes, in its character of conservancy measure, "that there are available trees of the lower age classes in due proportion to "replace the mature trees removed. This is true of the gregarious species, such "as *In*, but of none of the other species selected for the sake of their timber. "The stock of those woods interspersed among trees of no value is nearly all of the "mature class. It is as it were the savings of the forest which it has laid up in "the course of several generations of tree-life and not the normal produce which "such generation can replace. "A large share of the smaller trees are likewise mature inasmuch as their vigour is exhausted and they have no prospect of attaining marketable size. The large trees of valuable species which are removed make room not for relays of their species, but for those of other and valueless species. The ancient stagnant condition of this country permitted the existing stocks to accumulate. The sudden drain which the impulse to trade under British occupation created is an over-tax to natural production not of the forests at large, but of the valuable elements sparsely distributed through them, which are being worked practically for the benefit of the valueless elements, being exterminated in fact, as the case of the teak in the old workings exemplifies."

6.—*Artificial Reproduction.*

Teak-taungyas. General results.

23. The area planted by teak taungya-cultivators amounts to 1,156·7 as against 1,256·4 acres planted last year. The falling off is due—

(i) to the entire cessation of planting in the Kahilu reserve of the West Salween division and in the Gôngyi reserve of the Attaran division. In the former, as the Divisional Officer reports, the character of the soil is altogether unsuited to teak cultivation; and in the latter owing to the migration of the villagers who had taken up the work of planting;

(ii) in the Mepalè reserve of the East Salween division eight cultivators chose this year to cut yas outside reserve limits. It is believed, however, that they will return.

Details of the number of acres planted in the different reserves and of the number of plants per acre with cost are tabulated below:

Division.	Reserve.	Estimated area planted in acres.	Number of plants raised per acre.	Total cost.	Average cost per acre.	Remarks.
				Rs. A. P.	Rs. A. P.	
West Salween	Mèwaing ...	129	914	1,104 0 0	8 8 11	
	Sinzwè ...	279	478	1,541 0 0	5 8 4	
	Ônkangyi ...	100	651	650 0 0	6 8 0	
	Bilakatkyi ...	152	408	688 0 0	4 8 5	
	Tagèlaung ...	168	456	768 0 0	4 10 10	
	Total ...	828	551	4,746 0 0	5 12 3	
East Salween	West Mepalè ...	176·5	1,020	1,825 4 6	10 5 6	
	Mithawè ...	30·2	792	245 10 0	8 1 10	
	Total ...	206·7	882	2,070 14 6	10 0 9	
Attaran	Dali ...	35	838	170 0 0	4 13 9	
	Natchaung ...	11	45	46 0 0	4 2 10	
	Kyunchaung ...	37	644	316 0 0	8 8 7	
	Thingannyinaung	24	499	148 0 0	6 2 7	
	Total ...	107	450	680 0 0	6 5 8	
	GRAND TOTAL ...	1,136·7	601	7,496 14 6	6 9 6	

Teak taungyas in the West Salween.

24. In the West Salween division, with the exception of the plantations in the Mèwaing reserve, with its 914 plants to the acre, the results of taungya teak-planting are unsatisfactory, the taungyas being far from well-stocked.

Teak taungyas in the East Salween division.

25. In the East Salween division the majority of the taungyas were well-stocked, especially in the West Mepalè reserve, where 22·2 acres of plantations were fully stocked with over 1,200 plants to the acre, while 115·7 acres contained over 1,000 plants each.

Teak plantations were started for the first time in the Mithawè reserve and more than one-third of the area planted was well-stocked with over 1,000 plants per acre.

Teak taungyas in the Attaran division.

26. In the Attaran division, in the Natchaung reserve, the plantations were a complete failure, and in the Dali, Kyunchaung, and Thingannyinaung reserves only partially successful. The results on the whole are very unsatisfactory. The Divisional Officer says that the seed, which was procured from the Pegu circle, was probably in part mixed and bad. In the East Salween division, however, the same seed has succeeded well.

7.—*Cutting Creepers, Weeding, and Thinning.*

27. The usual weedings of taungya teak plantations have been carried out. The details are as below:

Weeding teak taungyas.

Division.	Reserve.	Year of formation.	Area in acres.	Cost.	Cost per acre.	Remarks.
				Rs. A. P.	Rs. A. P.	
West Salween	Sinzwè	1887 1888 1889	85 127 253	799 0 0	1 11 5	
	Mèwaing	1887 1888 1889	143 218 301	664 0 0	1 0 0	
	Kahilu	1887 1888 1889	56 37 68	305 0 0	1 14 3	
	Ônkangyi	1887 1888 1889	210 110 113	429 0 0	0 15 10	
	Bilakatkyi	1887 1888 1889	155 110 40	168 0 0	0 8 9	
	Tagèlaung ...	1889	105	230 0 0	2 3 0	
East Salween ...	West Mepalò	1883 1884 1885 1887 1888 1889	10 18 20 6 134 230	1,436 11 0	3 6 11	The following sums were also disbursed: Rs. 110-4-0, value of teak-seed in hand, and Rs. 50, value of paddy on hand.
Attaran ...	Dali	1887 1888 1889	8 43 41	79 0 0	0 13 8	
	Natchaung ...	1889	23	94 0 0	4 1 4	
	Kyunchaung	1887 1888 1889	23 25 29	102 0 0	1 5 2	
	Thingannyinaung	1888 1889	4 37	126 0 0	3 1 2	
	Total ...	...	2,782	4,432 11 0	1 9 5	

28. In the West Salween division the weeding is reported to have been performed with regularity and efficiency, but the labour available is insufficient and a larger establishment is necessary. The work of cutting creepers and stock-taking in the older plantations had to be suspended for want of coolies to carry it out.

Weeding of teak taungyas, West Salween division.

29. In the East Salween division the weeding was late, but many of the older plantations were cleared in which the denseness of the undergrowth rendered the work difficult and costly. The expenditure is nevertheless excessive and is due to the want of supervision on the part of the ranger in seeing that the coolies worked properly. The ranger has since been discharged.

Weeding teak taungyas, East Salween division.

30. In the Attaran division the weeding was thoroughly well done for the first time. In the Natchaung plantations it was even overdone owing to the inexperience of the subordinate superintending the work.

Weeding teak taungyas, Attaran division.

8.—*Experiments and Exotics.*

31. The mahogany plants in the Forest office compound are doing well, as are those planted out at Duyinzeik on the Dôndami river. At Shwegôn, on the Salween river, however, nearly all the mahogany plants put down have died: five only survive.

Mahogany.

32. Of the 48 large trees of *Hevea Braziliensis* left at the close of last year two have died. Blank spaces in the garden have been planted up with 575 seedlings from the nursery.

Mergui experimental gardens. Departmental experiments. Para rubber.

The stock at the close of the year was—

Large trees	46
Small trees	8,298
Seedlings	3,160

From the seed collected from the larger trees a box containing 4,800 seeds was sent through the Conservator of Forests, Pegu Circle, to Bhamo. The Deputy Conservator of Forests, Bhamo, has reported that of the seedlings sent him last year at least 50 per cent. are doing well.

In September 1890 the larger trees were again tapped and 3lbs. 5½oz. rubber obtained. This will be forwarded as before to Kew for report.

33. The castilloa plants have been reduced by 13 deaths to 48 in number, and the ceara (*Manihot glaziovii*) to 278. *Ficus macrophylla* seems to do well: the number of the plants was increased by 146 cuttings.

Castilloa elastica. Manihot glaziovii. Ficus macrophylla.

34. The figures as below show the number of other trees cultivated that were on hand at the close of the year:

Other trees cultivated.

Mahogany	2
Pithecolobium saman	28
Manilla hemp	498
Divi-divi	1,472
Talaingsôk	80
Annatto	392
Kyetpaung	102
Kyetmauk	30
Akyaw	45
Taungthangyi	11
Nutmeg	70
Sinkozi	241
Broussonetia papyrifera	9

Of annatto five baskets collected remained unsold at the end of the year. The cultivated portion of the garden suffering severely from the depredations of barking-deer, two more strands of barbed wire were added to the fence at a cost of Rs. 192-9-0.

35. The total expenditure for the year charged to the Forest Department area amounted to Rs. 1,212-14-6.

Expenditure during the year.

36. The area under Liberian coffee remained as in last year 1·95 acres. The number of plants at the beginning and close of the year were as follows:

Experimental cultivation undertaken with provincial grant.

Beginning of the year	8,372
Close of the year	8,353
Decrease ...	19

The Divisional Officer reports that "during the rainy season the coffee was "attacked by a leaf disease, which in all its characters resembles the disease pro-"duced by the attack of the *Hemeleia Vastatrix*. It showed itself in a dis-"colouration on the leaf, beginning in a point about the size of a pin's head and "gradually turning the whole leaf yellow. As the disease advanced the under "part of the leaf became covered with a rusty-coloured powder (spores of the "fungus?). The stems and even the berries were attacked. Quantities of the "latter withered and fell off before attaining maturity."

By clearing the ground of weeds and dead leaves, sprinkling the trees with lime, and manuring the ground with ashes, &c., the disease was got under. The crop of the year amounted to 145·7 viss, of which 31·7 viss remained unsold at the end of the year.

Tea.

37. The number of plants remained the same, namely, 172. As reported in last year's annual report the experiment is on too small a scale to be of any practical use.

Cocoa.

38. The number of cocoa plants has again been reduced by deaths. At the close of the year only four plants were left, but 57 seedlings have been raised from seeds obtained from the older trees.

Vanilla.

39. The pods which were formed last year, as reported, matured in August and September 1890, and were cured. Hitherto the difficulties in the curing of vanilla were that the pods dried without a trace of the characteristic flavour of vanilla.

After many experiments, involving a long and tedious process, the vanilla pods this year were cured fairly successfully, possessing a distinct flavour and scent. The credit of the achievement is due to Mr. Ingram, Sub-Assistant Conservator of Forests. A separate report and samples of the cured vanilla beans have been forwarded to the Director of the Department of Land Records and Agriculture for transmission to the authorities at Kew for favour of report. Numerous cuttings were taken and planted at the foot of jack trees in the garden. The number of plants at the beginning and end of the year were as follows:

1st April 1890	284
31st March 1891	418

Pepper.

40. The cultivation of pepper is being extended. Owing to some unknown cause the plants did not flower this year.

Total receipts and expenditure on the Civil Department side.

41. The receipts, which were solely from the sale of coffee, amounted to Rs. 334, the expenditure to Rs. 593-14-5.

9.—*Communications and Buildings.*

Buildings repaired and constructed.

42. The total cost on buildings in the circle during the year amounted to Rs. 1,145-12-7.

In the Attaran division alterations in the Forest Office came to Rs. 340-14-0: other petty repairs cost Rs. 6.

In the West Salween division temporary rest-houses were erected in the Mèwaing and Minnanwè reserves at a cost of Rs. 34 in all.

In the East Salween division the erection of a forest rest-house in the Mepalè reserve cost Rs. 300 and of a temporary hut in the Mithawè reserve Rs. 20. Repairs to Government buildings at Kawkareik came to Rs. 112-14-6. Rupees 94-13-3 were realized as rent for the Kawkareik forest bungalow.

In the Kado division the expenditure was as follows: Erection of two new guard huts at Meseik, Rs. 146-14-4; other petty repairs to Government buildings, Rs. 31-14-0. In the South Tenasserim division the Sinzeik guard-house floor was renewed and the building generally repaired for Rs. 49-8-3. The Mergui inspection bungalow was re-roofed and the compound fenced round at a total cost of Rs. 99-11-6.

43. The launch *Attaran*, attached to the Kado division, made 63 trips during the year aggregating 2,416 miles, or 528 hours under steam. The working expenses amounted to Rs. 2,804-10-6, including wages of crew Rs. 1,297, coal Rs. 906-12-0, stores, &c., Rs. 324-11-6, repairs Rs. 216-3-0, and surveyor's fees Rs. 60. The launch has per force been used less this year than in the previous year as her machinery was continually breaking down. She is unsuited to the navigation of the rivers here, and if another launch drawing less water, possessed of greater stability and speed, and having simpler engines, could be attached to this circle, she would prove far more useful.

CHAPTER IV.

YIELD AND WORKING.

I.—Departmental Operations.

Departmental extraction of timber.

14. During the year 24,205 logs, or 11,114 tons, of teak timber were worked out by Government agency. The subjoined table gives the extraction per division and the rates paid :

Division.	Number of logs extracted during the year.	Average rates paid to contractors per log.	Average cubical contents per log.
		Rs A. P.	C. feet.
Attaran	826	3 12 4	34
West Salween	5,400	3 2 1	16
East Salween	14,105	5 10 2	27
Kado	3,874	1 4 6	10·97
Total ...	24,205	.....	.....

Seven thousand five hundred and eighteen teak logs were still in transit at the end of the year.

The decrease from last year in extraction of teak was 1,597 logs, or 2,126 tons. It has to be noted that, although the average cubical contents of the logs from the Attaran and East Salween divisions was greater than last year, the timber itself was inferior, hollow, and crooked, while the tonnage of the whole outturn of the circle was much reduced by the large number of small logs and crooks worked out in the Kado division.

Departmental extraction of timber other than teak.

45. Of timber other than teak there was an increase by Government extraction of 673 logs, or 1,490 tons. Details as below :

Division.	Timber.	Number of logs worked out during the year.	Average rate paid to contractors per log.	Estimated cubical contents per log.
			Rs. A. P.	C. feet.
Attaran ...	Thitka	56	12 2 3	70
	Pyinma	531	7 5 5	58
	Pyinkado	20	5 0 0	24
West Salween ...	Pyinma	103	9 4 6	58
East Salween...	Pyinma	1,960	8 7 0	59
	Padauk	8	23 4 0	48
	Ingyin	60	.....	32
	Other unreserved woods ...	2	.....	54
Kado	Pyinma	108	8 4 10	45
South Tenasserim	Pyinkado	394	7 9 0	46
	Padauk	1	3 8 0	35
	Myaukhlôk	2	6 10 0	48
	Pazenyo	1	7 9 8	56
	Total ...	3,246	.....	.....

Contractors' outstandings.

46. The outstandings against timber contractors at the close of the year amounted to Rs. 1,225, the whole of which is covered by work done. Out of the item of Rs. 1,540-10-0 reported as outstanding last year the Rs. 300 covered by collateral security were recovered, the balance Rs. 1,240-10-0 written off to "Profit and loss" under the sanction of the Government.

2.—*Removal of Produce by Purchasers.*

Timber extracted by leaseholders.

47. The following table shows the timber brought out by leaseholders from the Attaran forests :—

Forest.	Teak.		Other woods.			
	Logs and pieces.	Tons.	Thitka.	Pyinma.	Thingan.	Estimated total cubical contents of other woods.
Megwa-Kyunchaung	1,435	1,224	...	...	...	...
Mitiki-Kodugwè	611	300	165	89	8	233
Total ...	2,046	1,524	165	89	8	233

48. The duty realized was—

	Rs.
On 2,046 logs and pieces	5,102
On eight thingan boat-hulls	230
Total ...	5,332

The duty on the thitka and pyinma had not been paid at the close of the year.

Extracted by purchasers from unreserved forests.

49. The subjoined table shows the quantities of reserved woods worked out by purchasers :

Division.	Teak.		Thingan.		Kaungmu.		Padauk.		Pyinma.		Thitka.		Karawè.		Thitkado.		Kanzan.		Anan.		Total.		Revenue.		
	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	T.	C. ft.	Rs.	A.	P.
Attaran	...		681	24	...		...		...		...		...		...		...		..		681	24	6,535	9	8
West Salween ...	3	6	32	8	...		...		...		...		...		...		...		...		35	14	365	14	0
East Salween ...	...		344	42	...		25	49	...		...		...		.		...		...		370	41	3,883	13	6
Kado	...		165	25	...		...		12	45	...		...		...		...		...		178	20	1,783	10	0
South Tenasserim ...	...		1,283	0	1,049	0	...		...		69	0	15	0	3	0	77	0	57	0	2,553	0	3,514	2	0
Total ...	3	6	2,506	49	1,049	0	25	49	12	45	69	0	15	0	3	0	77	0	57	0	3,818	49	16,083	1	2

Of unreserved woods the amounts as below were extracted by purchasers:

Division.	Number of logs.	Nominal tonnage.		Revenue.		
		T.	C. ft.	Rs.	A.	P.
Attaran	4,372	3,323	15	5,241	10	0
West Salween	995	1,158	25	1,590	8	0
East Salween	2,039	2,182	44	2,923	0	0
Kado	3,848	3,078	20	5,059	13	9
South Tenasserim	11,134	8,900	0	10,343	14	1
Total	22,388	18,593	4	26,058	13	10

Decrease in quantity of timber removed by purchasers.

50. As compared with the figures of last year there has been a considerable decrease in the extraction of timber of the reserved species. The bulk of this decrease is in the extraction of thingan for boat-hulls, which timber in the East Salween division is reported by the Divisional Officer to have become exceedingly scarce.

A falling off in the extraction of timber of unreserved kinds has taken place in all divisions except in the South Tenasserim division. This is due in great measure to the scanty rainfall of last year causing large quantities of timber taken out on post paid or trade licenses to lie neaped in the streams. The fluctuations in and the depressed state of the timber market, and the fact that in the East Salween division a very large proportion of the licenses issued were prepaid, have also affected the outturn and revenue of the circle.

Charcoal and minor produce removed by purchasers.

51. The revenue derived from charcoal and minor forest produce during the year was Rs. 2,449-8-4, the figures for the different divisions being as below:

Produce.	Attaran division.			West Salween division.	East Salween division.			Kado division.			South Tenasserim division.			Total.		
	Rs.	A.	P.	Rs. A. P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Charcoal ...	230	0	0	...		...		12	8	0	12	8	0	255	0	0
Wood-oil ...	192	0	0	...	10	0	0	34	0	0	1,848	0	0	2,084	0	0
Bamboos ...		...		...		...			...		50	8	4	50	8	4
Canes ...		...		...		...			...		60	0	0	60	0	0
Total ...	422	0	0	...	10	0	0	46	8	0	1,971	0	4	2,449	8	4

3.—*Free Grants.*

Free grants.

52. Free grants of reserved woods for religious purposes and works of public utility were made as follow:

Division.	Number of logs.								Estimated cubical contents.	
	Teak.	Thingan.	Pyinma.	Anan.	Karawé.	Thitka.	Kanzaw.	Total.	T.	C. ft.
Attaran ...	1	74	8	...	...	...	...	83	49	40
West Salween ...	9	...	...	...	...	...	...	9	5	20
East Salween ...	10	...	38	...	...	...	...	48	28	40
South Tenasserim ...	...	1	...	7	11	5	3	27	16	10
Total ...	20	75	46	7	11	5	3	167	100	10

4.—*Summary of Outturn.*

Outturn of circle.

53. The total outturn of the Tenasserim circle was as follows :

How removed.	Timber.				Charcoal and minor forest produce.
	Teak.	Reserved woods other than teak.	Unreserved woods.	Total.	
	Tons.	Tons.	Tons.	Tons.	Rs. A. P.
By Government agency	11,114	3,274	417	14,805	...
By lease-holders	1,524	233	...	1,757	...
By purchasers	3	3,819	18,592	22,414	2,449 8 4
Under free grants	15	85	11	111	...
Total ...	12,656	7,411	19,020	39,087	2,449 8 4

5.—*Drift Operations.*

Collection and disposal of drift wood.

54. The following statement shows the quantities of drift timber collected and disposed of :—

		Balance, 1889-90.	Collected in 1890-91.	Returned to claimants.	Sold or disposed of.	Balance at close of year.
		Logs.	Logs.	Logs.	Logs.	Logs.
Kado division	River drift teak	3,936	5,211	4,170	2,289	2,688
	River drift woods of other kinds.	43	36	...	69	10
	Confiscated canoes ...	3	24	2	25	...
	Sea-drift teak	1,149	859	85	1,578	345
South Tenasserim division.	Sea-drift teak	...	10	...	10	...
	Woods of other kinds ...	30	93	...	84	39

In addition to the above 1 ton of scantlings was received in the Kado division and remained undisposed of at the close of the year.

The revenue realized was—

	Rs. A. P.
On sales	45,905 9 0
On salvage	14,324 15 0
Total ...	60,230 8 0

The total expenditure incurred on salving operations inclusive of quota of charges for other expenditure amounted to Rs. 33,999.

6.—*Girdling.*

Girdling operations. Teak.

55. Proposals were submitted for the girdling of 700 teak trees in Block II of the East Salween division and of 500 teak trees in Block V of the West Salween division. The amount of teak in Block II, East Salween division, has in the rough working plans in operation at present been greatly over-estimated, for only 391 trees could be girdled without injury to the forest.

In the West Salween division, Block V, the full number of 500 trees was obtained.

Of species other than teak the full number according to proposals submitted were obtained and girdled.

Details of the girdled operations are as below :

Division.	Number of teak trees girdled.	Number of pyinma girdled.	Number of padauk girdled.	Cost.
				Rs. A. P.
East Salween	391	1,000	250	482 12 0
West Salween	500	...	...	189 7 0
Attaran	...	1,000	...	250 0 0
Total ...	891	2,000	250	872 8 0

7.—*Disposals and Sale Depôts.*

Local sales.

56. The following statement gives the details of arrivals, disposals, and sales of timber, &c., in the South Tenasserim division :—

Description of timber.	Balance on hand 1st April 1890.		Arrivals during 1890-91.		Sales and disposals in 1890-91.		Amount realized.	Balance on hand 31st March 1891.	
	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.		Logs.	Tons.
							Rs. A. P.		
Woods other than teak ...	108	134	398	367	12	14	124 0 0	494	487
Rejected pyinkado sleepers	...	...	107	8	44	1	26 9 9	63	2
Confiscated woods, other kinds.	11	13	52	73	51	70	268 8 0	12	16
Drift and waif wood ...	19	19	51	59	43	51	78 12 0	27	27
Ondôn bark	...	...	20 baskets.		20 baskets.		8 0 0	...	...
Pyinkado sleepers ...	3,000	90	...	...	2,550	77	4,513 8 0	450	13
Total ...	3,138	256	608	502	2,700	213	5,019 5 9	1,046	545

Timber depôt, Moulmein.

57. The arrivals and disposals of timber at the Moulmein depôt were as follows :

Description of timber.	Balance on hand 1st April 1890.		Arrivals during 1890-91.		Sales and disposals in 1890-91.		Balance on 31st March 1891.	
	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.	Logs.	Tons.
Teak	201	82	20,331	10,264	20,299	10,284	233	62
Woods other than teak ...	725	685	2,740	3,227	2,962	3,504	503	408
Miscellaneous scantlings and sleepers.	6,789	414	1,610	241	6,733	441	1,666	214
Total ...	7,715	1,181	24,681	13,732	29,994	14,229	2,402	684

Of the sleepers and scantlings 378 tons were shipped to and sold at Calcutta. Three hundred and twenty-two woods of other kinds were converted into scantlings. Seven teak logs and 5 tons of scantlings were used departmentally for the repair of various Government buildings.

Summary of sales at depôt.

58. The sales from the Moulmein depôt realized Rs. 2,44,238 as detailed below :

	Logs.	Tons.	Rs.	A.	P.	Per ton. Rs.	A.	P.
Teak by auction sales ...	20,252	10,254	1,77,525	4	0	17	5	0
Teak indent sales ...	40	25	380	0	0	15	3	2
Padauk indent sales ...	28	25	1,381	0	0	55	3	10
Sales to Bombay Gun Factory ...	69	63	7,874	0	5	124	15	8
Pyinma indent sales ...	2,486	2,967	35,685	7	0	12	0	5
Thitka indent sales ...	55	78	1,752	8	7	22	7	6
Unreserved woods indent sales ...	2	2	8	0	0	4	0	0
Pyinma sleepers auction sales ...	123	7	121	0	0	17	4	7
Pyinkado scantlings auction sales	...	50	948	4	0	18	15	5
Pyinkado sleepers indent sales ...	5,229	157	9,255	5	3	58	15	2
Pyinma sleepers indent sales ...	1,187	82	4,154	8	0	50	10	7
Pyinma scantlings indent sales ...	...	111	3,895	5	6	35	1	6
Pyinkado scantlings indent sales	...	29	1,257	2	9	43	5	7

Approximate value of stock of timber at depôt.

59. The value of the stock in hand at depôt on the 31st March 1891, exclusive of foreign timber, considering the low price of timber in the market at present, can only be estimated at the low figure of Rs. 15,463.

8.—*Imports and Exports of Timber.*

Imports of foreign timber at Kado.

60. The balance of foreign timber at the Kado timber station at the beginning of the year was 124,428 logs of teak estimated at 110,495 tons and 75 logs, or 59 tons, of woods of other kinds.

The imports during the year were—

	88,856	full-sized teak logs.
	21,599	under-sized teak logs.
	5,867	stem-pieces.
Total ...	116,322	teak logs and pieces, and 12 logs of other kinds.

Compared with the imports of the previous year there was a decrease of 5,512 full-sized logs and of 3,119 stem-pieces, and an increase of 1,331 under-sized logs, or a net decrease of 7,300 logs and pieces.

The quantity of timber removed from the Kado revenue station was 110,143 teak logs and three logs of other kinds. The balance at Kado at the close of the year was 130,607 logs of teak estimated at 115,933 tons and 84 logs, or 66 tons, of woods of other kinds.

Quantity of foreign teak timber on which duty was paid.

61. The quantity of foreign teak timber on which duty was paid at Kado and the corresponding figures of last year were as follow :

Year.	Logs.	Tons.	Value.	Duty realized.
			Rs.	Rs.
1890-91	108,284	65,678	26,50,318	1,85,539
1889-90	55,048	36,352	19,85,900	1,39,014
Difference in 1890-91 ...	+ 53,236	+ 29,326	+ 6,64,418	+ 46,525

The Bombay Burma Trading Corporation, Limited, imported from Ningyan 1,859 teak logs estimated at 1,376 tons, the duty on which was paid at Toungoo.

Average market value of foreign teak.

62. The selling price of foreign teak timber has been steadily declining during the last two years, the following are the average market values of the past two as compared with the present year:

Year.	Average market value of foreign teak.		Increase or decrease.	
	Per log.	Per ton.	Per log.	Per ton.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1888-89	52 6 4	52 11 7	...	...
1889-90	36 4 10	54 15 0	16 1 6	+2 3 5
1890-91	24 7 7	40 5 7	11 13 3	—14 9 5

63. In the Kado division the registries of hammer-marks and revenue realized were as below:

	Rs.
56 new hammer-marks for teak timber registered at Rs. 100 each ...	5,600
21 old marks renewed at Rs. 25 each	525
33 marks transferred at Rs. 10 each	330
477 marks renewed at Re. 1 each	477
46 new hammer-marks for woods of kinds other than teak registered at Rs. 5 each	230
Total ...	7,162

showing a decrease of Rs. 12,242 on the revenue realized last year, the decline in trade causing fewer hammer-marks for teak timber to be taken out.

Exports of teak timber from Moulmein.

64. The total exports from the port of Moulmein of teak were 64,227 tons, or 16,644 tons less than in the previous year.

The exports of woods other than teak were 4,694 tons, or 1,562 tons less than in the previous year.

The exports of teak from Moulmein to Europe were 7,877 tons, or 17,585 tons less than in the previous year.

Export trade of teak to Europe.

65. The prices for teak in the home markets varied from £9 to £11 per ton and the freights homeward from 47*s.* 6*d.* to 52*s.* 6*d.* per ton.

Export trade of teak to Indian markets.

66. As regards the Indian market the prices varied in Bombay and Calcutta as follows:

Bombay—

	Rs.		Rs.	
Squares	55	to	70	per ton.
Scantlings	68	to	80	per ton.

Calcutta—

	Rs.		Rs.	
Squares	65	to	80	per ton.
Scantlings	70	to	90	per ton.

67. The price of shingles in the Moulmein market averaged from Rs. 18 to Rs. 20 per 1,000.

68. The export of boat-hulls from Tavoy has increased during the year. The figures for the year under report and the previous year are—

	1889-90.	1890-91.
	Rs.	Rs.
Exported from Tavoy	80=81,480	107=1,10,750

A large number of these were of thingan, on which the duty at Tavoy is only Rs. 8 per log, and of kadut paying a duty of Rs. 1-8-0 per log. Proposals were submitted in August 1890 suggesting the increasing of the duty on thingan to

Rs. 25 per ton and on kadut to Rs. 10 per ton. The proposals are still in abeyance.

69. The figures for 1889-90 and 1890-91 of the export of wood-oil from Mergui are as follows:

	Rs.
1889-90	14,456
1890-91	17,475

CHAPTER V.

FINANCIAL RESULTS.

70. The revenue and expenditure of the year were—

	Rs.
Revenue	5,74,849
Expenditure	3,31,694
Surplus ...	2,42,655

showing a decrease of Rs. 1,17,591 on the previous year's surplus.

Detailed comparison with previous year.

(a) Timber extracted by Government agency.

71. The revenue on timber extracted by Government agency amounted to Rs. 2,65,064 as against Rs. 4,45,884 in 1889-90. The decrease is due almost entirely to the conspicuous fall in the market price of teak. For comparison a statement is appended showing the prices obtained at the Government auction sales of teak timber in 1889-90 and 1890-91. A reference to this will show that whereas Government teak timber fetched in 1889-90 an average of Rs. 14-6-0 per log, or Rs. 27-6-0 per ton, in 1890-91 the prices dropped to Rs. 8-12-3 per log, or Rs. 17-5-0 per ton.

The expenditure came to Rs. 1,60,230, or Rs. 52,710 less than the expenditure of the previous year proportioned in part to the lesser delivery of timber, and to the lower proportion of proceeds paid to contractors, who worked under the two-thirds three-fourths rate of proceeds.

(b) Timber extracted by purchasers.

72. The receipts for timber and minor forest produce removed by purchasers amounted to Rs. 50,375, or Rs. 1,732 less than in the previous year, due chiefly to the lesser number of licenses issued for thingan, as already noted, in the East Salween division, and to the greater number of prepaid licenses instead of post-paid taken out in the same division for unreserved woods. The cost of collection was Rs. 1,625, showing an increase of Rs. 386, due chiefly to the additional appointments of a forester and two forest guards in the Attaran division.

(c) Drift operations.

73. The receipts on account of drift timber were Rs. 60,230 against Rs. 66,282 in the previous year. The decrease is Rs. 6.052, accounted for by the less number of logs sold. The expenditure was Rs. 27,381, or Rs. 4,321 less than in 1889-90.

(d) Duty on foreign timber.

74. The increase under this head was Rs. 46,525, which however cannot be explained by there being a demand for teak in the market, but is owing solely to the fact of importers not being able to afford to keep their teak on hand and preferring rather to sell it at a loss than chance the risk of a further fall in the price of teak. There was a decrease in the expenditure of Rs. 403, representing chiefly savings on pay of establishments.

(e) Miscellaneous.

75. Under this head the considerable decrease of Rs. 17,123 is accounted for by the very great falling off in the taking out of hammer-certificates for imported timber and to the fewer cases compounded.

(f) Live-stock, stores, &c.

76. The disbursements show a decrease of Rs. 2,677, consequent on the purchase of only one elephant as against three bought in 1889-90.

(g) Communications and buildings.

77. Rupees 1,059 less were expended on buildings than in the previous year.

78. An increase on previous year's expenditure of Rs. 11,931 the chief item of which was for the party of the Forest Survey detailed for work in the circle this year.

(h) Works of improvement.

79. The cost of establishments was Rs. 96,463 as against Rs. 87,395 in the previous year. The increase was due chiefly to the local allowances granted to officers from August 1890, and to the disbursements on account of pay to Mr. McHarg, Assistant Conservator of Forests, transferred to this circle from Pegu, and Maung Shwe Ka, Ranger, 5th grade, promoted to Sub-Assistant Conservator of Forests, on probation.

(i) Establishments.

80. The revenue and expenditure by divisions were as follow:

Division.	Revenue.			Expenditure.	Surplus or deficit.
	Collected locally.	Agency collection.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
Attaran and Agency	...	52,841	52,841	43,403	+ 9,438
East Salween	1,675	1,81,724	1,83,399	1,51,759	+ 31,640
West Salween	635	39,603	40,238	43,641	— 3,403
Kado	2,75,018	...	2,75,018	76,336	+1,98,682
South Tenasserim	22,853	...	22,853	16,555	+ 6,298
Total ...	3,00,181	2,74,168	5,74,349	3,31,694	+2,42,655

81. The summary of receipts and expenditure compared with those of the last two years is as below:

	Receipts.			Charges.			Surplus or deficit.					
	1888-89.	1889-90.	1890-91.	1888-89.	1889-90.	1890-91.	1888-89.		1889-90.		1890-91.	
							Surplus.	Deficit.	Surplus.	Deficit.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	4,81,743	4,45,884	2,65,061	2,41,751	2,40,918	1,89,768	2,39,992	...	2,04,[illegible]	...	75,293	...
II.—Other revenue	1,88,079	2,87,647	3,09,285	93,502	92,509	91,303	94,577	...	1,95,165	...	2,17,982	...
III.—Formation and improvement.	...	...	...	39,276	39,885	50,623	...	39,276	...	39,885	...	50,623
Total ...	6,69,822	7,33,558	5,74,349	3,74,529	3,73,312	3,31,694	2,95,293	...	3,00,246	...	2,42,655	...

CHAPTER VI.

82. The Burma Forest Act of 1881 was amended by Act V of 1890 and copies, with the Rules, Notifications, and Departmental Directions under the Act corrected up to the 31st May 1890, were received on the 1st July 1890. The following revisions were made since:—

Act and rules.

Notification No. 84 (Forests), dated the 12th June 1890, published revised form of license for the collection of wood-oil.

By Notification No. 85 (Forests), dated the 12th June 1890, an additional sub head to Rule 3 of the Departmental Directions for the guidance of Forest Officers in regard to the disposal of Government timber was issued.

Notification No. 133 (Forests), dated the 14th August 1890, re-revising form of license for the collection of wood-oil.

Notification No. 174 (Forests), dated the 20th October 1890, added kanyin to the list of reserved woods in the Tenasserim circle.

Notification No. 178 (Forests), dated the 23rd October 1890, revised Rule 8 of the rules made under the Act.

Notification No. 179 (Forests), dated the 23rd October 1890, added a form of a new license,—No. IXA. License for manufacturing the extracts of certain barks.

Notification No. 217 (Forests), dated the 9th December 1890, empowered every Deputy Conservator of Forests in charge of a Forest division, and every Assistant Conservator and Sub-Assistant Conservator in charge of the current duties of the office of a Divisional Officer, to exercise the powers conferred by section No. 66 of the Forest Act.

Elephants.

83. The number of elephants was increased by one, the average monthly cost of each animal being Rs. 32-0-7.

Controlling staff.

84. Mr. M. H. Ferrars, Deputy Conservator of Forests, 1st grade, held charge of the Tenasserim circle from the 10th October to the 6th November 1890 inclusive, and Mr. P. J. Carter, Officiating Conservator of Forests, Pegu Circle, from the 7th to the 23rd November 1890 in addition to his other duties. During the rest of the year the circle was in charge of the writer of this report.

Health of officers.

85. The health of officers has not been good. Mr. M. H. Ferrars, Deputy Conservator of Forests, and Mr. T. A. Hauxwell, Deputy Conservator of Forests, both suffered from dysentery, and the Officiating Conservator of Forests had to take privilege leave on medical certificate on account of a severe attack of the same.

Services of officers, Attaran and West Salween divisions.

86. The Attaran and West Salween divisions were throughout the year in charge of Mr. M. H. Ferrars, Deputy Conservator of Forests. In the Attaran division Mr. Ferrars failed to carry out orders issued with respect to the marking of kanyin timber extracted under licenses taken out previous to the reservation of the wood, and Mr. W. T. T. McHarg, Assistant Conservator of Forests, had to be detailed for the duty. The West Salween division has been utterly neglected, the more distant reserves not having been visited by any officer for years, the boundaries have not been kept up, and breaches of rules have taken place. The Divisional Officer was in entire ignorance that irregularities had occurred and that the manufacture of cutch without any license issued under the Forests Rules was going on in the northern forests of the division.

East Salween division.

87. In the East Salween division the work of the Forest Survey party was ably superintended by Mr. T. A. Hauxwell, Deputy Conservator of Forests.

Kado division.

88. The work of the Kado division is very heavy and has increased considerably during the last two years. Mr. A. Weston, Deputy Conservator of Forests, has held charge of the division throughout the year and has worked well.

South Tenasserim division.

89. During the year under report the South Tenasserim division was under charge of Mr. C. Ingram, Sub-Assistant Conservator of Forests, who has carried out and organized the work of this rather extended division most satisfactorily.

Executive and office establishments.

90. The work of the Forest and office establishments for the year is well reported on, but the former establishment, as noted in the previous year's report, is considerably undermanned. Credit is due to Babu Ramasawmy, Head Clerk, Attaran and Agency Division, for the efficient carrying out of the work of the Agency, and to Mr. Johnson, who has superintended the work of the Conservator's office.

MOULMEIN: *The 10th June 1891.*

C. T. BINGHAM, MAJOR,
Offg. Conservator of Forests, Tenasserim Circle.

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REPORT

ON

FOREST ADMINISTRATION

IN

THE PEGU CIRCLE

For the year 1890-91,

BY

P. J. CARTER, ESQ., OFFICIATING CONSERVATOR OF FORESTS.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

Increase of area.

1. The area of reserved forests was increased during the year by 28 square miles, sanction having been received to the reservation of the following forests:—

	Acres.	Notification No.	
Saing Yane extension	301	58	of 16th April 1890.
Nyaungyidauk	2,240	17	of 21st January 1891.
Kyungôn	2,560	18	of 21st January 1891.
Kanyutkwin	12,800	19	of 21st January 1891.
Total ...	17,901		

In Form 49 an increase of 80 acres, due to the completion of accurate survey, is shown against the Satpôk reserve. The total area of reserved forests is now 3,792 square miles.

Pending settlement operations.

2. Owing to the Forest Settlement Officer failing to observe the procedure prescribed by the Act, the settlement of the Thigôn and Onhnèzan proposed reserves in the Thayetmyo division has not been completed. The settlement of the following proposed reserves is also incomplete: Pyinmachaung and Shwelaung in the Rangoon division, Yetkansin and Chaungmangè in the Toungoo division, and Myanaung in the Western division.

New proposals.

3. Proposals for further reservation are in course of preparation in the Thayetmyo, Rangoon, and Shwegyin divisions.

2.—Boundaries.

Demarcation and repairs.

4. No repairs to boundaries were found necessary in the Thayetmyo and Prome divisions. In the Tharrawaddy division Rs. 764-11-0 were spent on the boundaries of the Thindawyo, Chaungzauk, Sitkwin, and Satpôk reserves; fresh boundary posts have been erected so that from one post the next post can be easily seen. Rupees 22 were spent on minor repairs on the boundaries of the Kôn-Bilin,

Thônzè, Minhla, Satpôk, and Sitkwin reserves; Rs. 235-7-6 were paid for new iron numbered plates to replace those missing.

In the Rangoon division repairs were executed on the boundaries of the Ôkkan, Thabyu, Hlaing-Yoma, Thitpyat, Kyunchaung, Wanetchaung, Hmawbi, and Paunglin reserves at a cost of Rs. 397, of which Rs. 101-13-8 were disbursed during the year. In the Toungoo division the Pyuchaung reserve was demarcated at a cost of Rs. 831-8-0 and Rs. 1,028-9-0 were spent on new mounds and boards on the boundaries of the Pyuchaung, Kanni, Saing Yane, Thandaung, and East Swa reserves.

In the Shwegyin division minor repairs to the boundaries of the Tônkan, Upper Kannyinmyaung, Lower Kannyinmyaung, Binbyè, and Kyundaung reserves cost Rs. 9-12-0.

Encroachments.

5. No encroachments on the area of reserved forests have been reported.

CHAPTER II.

1.—*Surveys.*

Forest survey operations.

6. The Forest Survey Party was employed in the survey of the Kabaung reserve on the 4 inch scale, on survey on the 2-inch scale near Paukkaung in the Prome division, and on preparing traverses for future work in the Bôndaung and Pyu reserves. The estimated cost of the party from 1st October 1890 to 30th September 1891 amounts to Rs. 97,000. About 167 square miles have been completed on the 4-inch scale and about 200 square miles on the 2-inch scale, as well as some triangulation and about 200 square miles of traversing. The commencement of field-work was delayed owing to an outbreak of cholera among the men during the voyage from Calcutta to Rangoon; work was not so interrupted by sickness as in the previous season, but some of the best men died from the effects of the malarious climate and many were invalided.

2.—*Working Plans.*

Taungnyo forests.

7. A working plan for the Taungnyo forests, covering an area of 167·45 square miles, has been drawn up and sanctioned. It admits of the girdling of 2,000 teak trees and the sale of 12 licenses to boil cutch per annum.

Field work.

8. The examination of the Shwele forests was completed and that of the Nawin forests commenced. Owing to an exceptionally healthy season Messrs. H. Carter and J. Messer were able to continue work until May, by which time they had completed all the area for which maps were available. The area examined and the cost has not yet been computed. The amount spent on A—VIII(*c*) during the official year was Rs. 8,244-3-9.

3.—*Annual Plan of Operations.*

Annual plan of operations.

9. The plans of operations have been well adhered to by Divisional Officers as may be seen from Appendix **O**.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—*Establishment.*

Changes in superior staff.

10. Mr. J. Messer, an Assistant appointed by the Secretary of State, joined the circle on the 1st January 1891. Mr. E. P. Popert, Conservator, proceeded on furlough on 9th July 1890. Mr. H. Jackson, Deputy Conservator, was transferred to Upper Burma. Mr. W. T. T. McHarg, Assistant, was transferred to Tenasserim, and

Mr. G. F. R. Blackwell, Assistant, joined the circle on transfer from Upper Burma.

Changes in subordinate staff.

11. Mr. E. B. Powell, a passed student from Dehra Dun, was appointed a Sub-Assistant on 29th November 1890.

Comparative cost of establishments.

12. The following statement shows comparative cost with the previous year of permanent and temporary establishments:—

Division.	1889-90.		1890-91.			
	Cost of permanent establishment.	Cost of temporary establishment.	Sanctioned permanent establishment.	Sanctioned temporary establishment.	Actual cost of permanent establishment.	Actual cost of temporary establishment.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Thayetmyo ...	2,525	2,291	4,476	4,682	3,458	3,625
Prome ...	5,575	1,347	9,480	1,464	6,903	1,827
Tharrawaddy ...	12,682	4,933	11,472	8,084	11,061	5,217
Rangoon ...	10,145	2,760	10,368	3,552	8,885	2,489
Toungoo ...	9,496	1,826	10,116	1,892	9,472	1,777
Shwegyin ...	5,696	1,224	6,486	2,820	5,857	3,062
Western ...	5,760	2,383	4,788	1,680	5,408	1,101
Agency ...	24,010	10,845	27,210	13,144	24,445	11,120
Total ...	75,889	27,609	84,896	37,268	74,989	30,218

2.—*General Protection and Breaches of Forest Laws.*

Forest offences.

13. During the year 743 breaches of forest law involving 846 persons were settled, 94 cases in which 110 persons were concerned were prosecuted, and convictions were obtained in 76 cases against 92 persons. Divisional Officers compounded 649 cases implicating 736 persons for Rs. 10,722-15-0. The offences were all of an ordinary kind. The percentage of convictions in cases sent into Court is 81, this low percentage is entirely due to the Thayetmyo division, where only 34 convictions were obtained in 51 cases. In this District Magistrates have been too lenient dealing with forest offences, although it must be admitted that in many cases the prosecution was faulty. The number of offences was considerably less than in the previous year.

3.—*Forest Fires.*

14. Fire-protection has been less successful than usual owing to the abnormally long dry reason; no rain having fallen until the 21st May. The area attempted was 202,297 acres, or 43,317 acres more than in the previous year, the area protected was 162,269 acres, or 6,403 acres more than in 1890. The percentage protected was 80 per cent. as compared with 98 per cent. in the previous year. The cost was Rs. 17,165, or 1 anna and 8 pies per acre.

Thayetmyo.

15. In Thayetmyo the protection of the Tindaw reserve was attempted, but on the 3rd April a taungya-cutter fired his ya on the edge of the reserve without observing any of the prescribed precautions, and the whole reserve, except 4 acres of plantation, was burnt; the ya-cutter was prosecuted and sentenced to four months' simple imprisonment. The expenditure amounted to Rs. 291-6-6, or Rs. 72-13-7 per acre protected.

Prome.

16. On the 12th April about 10 acres of the Prome plantation were burnt; the fire was blown into the plantation from the surrounding forest by a high wind. In the Chaungzauk reserve 14 fires occurred, nine of these were due to incendiarism and five to carelessness; the area burnt was 798 acres of forest and 158 acres of plantations. In Bwet four fires occurred and spread over 33 acres of forest and one acre of plantation; one of the fires occurred through carelessness on the part of the men employed, two fires are due to the carelessness of three taungya-cutters, who were find Rs. 75, and the other fire was caused by the burning of a taungya without proper precautions. The taungya-cutter was prosecuted and sentenced to six months' rigorous imprisonment. In the Kyaukgyidaung reserve one fire was caused by an incendiary and spread over 894 acres of forest and 106 acres of plantations owing to the want of energy on the part of the forest guard in charge, who was fined and dismissed. In Gwedaukkwin six fires occurred, one of which may have been caused by a traveller's carelessness, but the other five were undoubtedly the work of incendiaries. The fire extended over 231 acres of forest and 65 acres of plantation. None of the incendiaries were discovered; but the visit of the police to the spot to make enquiries had such a wholesome effect that incendiary fires ceased. The area protected in Prome was 21,756 acres, or 90 per cent. of the area attempted; the cost was Rs. 3,239-14-6, or 2 annas and 5 pies per acre.

Tharrawaddy.

17. In Tharrawaddy 18 fires occurred, 11 were incendiary fires, three arose from the carelessness of outsiders, three from the carelessness of the staff employed, and the origin of one fire could not be traced. Thirteen offenders were prosecuted, but only four of them were convicted. An attempt was made by the Deputy Commissioner to save from fire the unprotected area of forest, and over 4,000 acres of such forest did escape being burnt; fire entered from the other districts in which no such attempt was made in addition to fires which started in the district itself. In previous years the area outside the protected area was intentionally set on fire, but this was no longer possible and the cost of protection has therefore increased. The area protected was 52,799 acres (85 per cent. of the area attempted) and the cost amounted to Rs. 6,675, or 2 annas per acre. The cost of protection in the previous year (excluding Shwèlè) was Rs. 4,772, or 1 anna 11 pies per acre.

Rangoon.

18. One fire occurred in Magayi and spread over 137 acres of plantation and 137 acres of forest the fire arose near the village and was probably the result of carelessness; a high wind prevented its extinction before it had spread over such a large area. One fire occurred at Kyetpyugan and spread over 9 acres of plantation; the fire crossed the trace from the surrounding jungle. A fire occurred in the Dawè area and extended over 502 acres of plantation and 18,000 acres of forest; the origin of the fire has not been reported; it originated near the Karentè. In the Tèdaw area two fires occurred, one from the carelessness of the Karens in firing their yas, and one crossed the trace from the outside forest; the fires spread over 3,210 acres of forest, but the plantations were saved. In Dawè and Tèdaw the Karens are only paid if the area is successfully protected, and this season they receive nothing. The area protected in the Rangoon division was 23,150 acres (51 per cent. only of the area attempted), and the cost was Rs. 3,268, or 2 annas 3 pies per acre.

Toungoo.

19. At Saing Yane one incendiary fire occurred and extended over 60 acres; the fire started in some plantations and the area of plantations burnt was 8 acres. At East Swa four fires caused by the carelessness of travellers spread over 3,035 acres of forest and 9 acres of plantation. In Bôndaung 50 acres of forest were burnt over by a fire caused by the carelessness of coolies employed by the Survey party. Fire crossed the trace of the Kabaung forest and spread over 50 acres of plantation; the forest guard in charge was dismissed. The area protected in the Toungoo division was 64,556 acres (95 per cent. of the area attempted) at a cost of Rs. 3,676, or 11 pies per acre.

20. One of the four teak yas attempted to be protected was burnt over and only Rs. 15 were paid to the Karens in charge.

Shwegyin.

Summary of fires.

21. The following table shows the area burnt in each protected area:—

Division.	Reserve.	Area fire-traced.	Area over which fires spread.		
			Total.	Of forests.	Of plantations.
		Acres.	Acres.	Acres.	Acres.
THAYETMYO ...	Tindaw	2,880	2,876	2,683	193
PROME	Prome plantation ...	75	10	...	10
	Chaungzauk	9,408	956	798	158
	Bwet	8,416	34	33	1
	Gwedaukkwin	3,973	296	231	65
	Kyaukgyidaung	2,180	1,000	894	106
THARRAWADDY	Payagyi	3,408	4	1	3
	Bawbin	1,500	530	257	273
	Kangyi	4,914	108	108	...
	Minhla	6,172	1,680	1,098	582
	Môkka	11,189	846	638	208
	Kôn-Bilin	4,881	2,042	2,030	12
	Thonzè	16,841	4,445	4,445	...
RANGOON	Magayi	3,367	274	137	137
	Kyetpyugan	940	9	...	9
	Dawè	31,288	18,502	18,000	502
	Tedaw	9,264	3,210	3,210	...
TOUNGOO	Saing Yane	33,600	60	52	8
	East Swa	17,280	3,044	3,035	9
	Bôndaung	10,880	50	50	...
	Kabaung	2,560	50	...	50
SHWEGYIN ...	Kyundaung	6	2	...	2
	Total ...	184,472	40,028	37,700	2,328

Injury to plantations by fire of 1890.

22. The plantations burnt over in the dry season of 1890 have been examined with the following results.

Thayetmyo.

23. The 20 acres burnt in the Tindaw reserve were plantations of 1888 and 1889; they had been weeded during the previous rains and, owing to the absence of undergrowth, the damage done is imperceptible.

Prome.

24. The Divisional Officer, Prome, reports that owing to stress of work no detailed notes on the effect on plantations of the fires of 1890 were made.

Tharrwaddy.

25. In Nyanlè the area burnt included 94 acres of plantation of the years 1880, 1882, 1885, 1887, and 1888; those of 1880 have not been injured, those of 1882 have suffered little damage, in those of 1885 a few trees have been scorched near the ground without injury to the terminal shoots and little damage has been done, but those of 1887 (15 acres) have suffered severely as they were full of tall dry grass at the time of the fire and the terminal shoots 8 or 9 feet from the ground have been killed; in those of 1888 the young plants have been burnt back to the ground and have sent up new shoots. Very little damage was done to the 2 acres of 1884 in Bawbin and 2 acres of 1885 in Myodwin. In Myaung 47 acres of plantations of 1875, 1885, and 1887 were overrun by fire, but little or no injury has been sustained. In Minhla-Môkka fire passed through 21 acres of plantation of 1883, 1884, and 1885 without doing significant damage.

4.—*Grazing.*

Grazing.

26. Rupees 91-4-0 were received in the Tharrawaddy division for the grazing of 203 head of cattle in the reserves, and in the Rangoon division Rs. 161-4-0 for 543 head of cattle. Right holders grazed in reserves 334 animals in the Tharrawaddy division and 59 animals in the Toungoo division.

5 and 6.—Reproduction by natural and artificial means.

(*a*) *Improvement, Girdlings, and Fellings.*

Improvement, girdlings, &c.

27. In the Thayetmyo division teak trees were freed from dominating overgrowth and creepers in the Tindaw reserve. In the Tharrawaddy division the following areas were similarly treated :—

	Rs.	A.	P.
Thonzè forest, 951 acres, costing	275	4	9
Kôn-Bilin forest, 981 acres, costing	574	2	9
Kadin-Bilin forest, 1,288 acres, costing	864	7	4
Môkka forest, 594 acres, costing	192	2	0
Minhla forest, 2,259 acres, costing	330	8	0
Gamôn forest, 3,811 acres, costing	380	8	0
Bawbin forest, 1,864 acres, costing	470	6	0
Total 11,248 acres, costing ...	3,087	6	10

or an average of 4 annas 5 pies per acre.

28. In the Kadat reserve, Rangoon division, creepers were cut at a cost of Rs. 21-1-3, and Rs. 95 were spent on felling 38 trees attacked by ficus ; this was not paid for at the close of the year. No work of this kind was undertaken in the remaining divisions.

(*b*) *Regular Plantations.*

Planting regular plantations.

29. In the Rangoon division the area of the Magayi plantation was increased by 17 acres at a cost of Rs. 270-14-8, or Rs. 15-15-0 per acre. A larger area was being prepared for planting, but the early rains of 1890 prevented thorough clearing. The area will be thoroughly cleared and planted in 1891.

(*c*) *Taungya Plantations.*

Planting teak taungyas.

30. The area cleared for planting was 1,615 acres, but 9 acres in the Prome division and 113 acres in the Rangoon division were failures; the area successfully planted was 1,493 acres, or 1,366 acres of pure teak, 13 acres of cutch and 114 acres of teak and cutch. The density of the crop (full crop = 1·0) and cost are shown in the following statements :—

Density of stock.

Divisions.	0·4	0·5	0·6	0·7	0·8	0·9	1·0	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Thayetmyo	18	26	19	25	28	8	...	114
Prome	15	42	64	101	42	45	...	309
Tharrawaddy	...	16	45	61	181	429	75	807
Rangoon	48	51	33	43	20	20	...	215
Toungoo	...	...	...	8	7	38	...	48
Total ...	81	135	161	233	273	535	75	1,493

	Acres.	Rs.	A.	P.	Per acre. Rs.	A.	P.
Thayetmyo	114	988	14	0	8	3	9
Prome	147	1,136	3	8	7	11	8
Tharrawaddy	807	7,258	11	8	8	15	9
Rangoon	215	2,068	0	0	9	9	10
Toungoo	48	672	8	2	14	0	0
Total ...	1,331	12,068	15	8			

The cost per acre includes teak-seed paid for in previous year. In the Prome division 162 acres were not paid for during the year. The area planted is less than in former years. Experience has shown that a larger area has been planted than can be weeded with the labour obtainable during the rains. Without weeding the teak plants in these taungyas are liable to suppression by bamboos and soft woods, and no larger area should be planted than can be weeded.

(*d*) *Creeper-cutting, Weeding, and Thinning.*

Weeding teak taungyas.

31. Teak taungyas were weeded as follows:

	Acres.	Rs.	A.	P.		Per acre. Rs.	A.	P.
Thayetmyo	197	400	8	6	or	2	0	6
Prome	1,200	3,411	12	0	or	2	13	6
Tharrawaddy	5,727	12,010	5	7	or	2	1	7
Rangoon	946	1,852	8	7	or	1	7	0
Toungoo	576	892	6	2	or	1	8	9
Shwegyin	...	15	0	0				
Total ...	8,646	18,082	8	10				

Weeding regular plantations.

32. Regular plantations were weeded—

	Acre.	Rs.	A.	P.		Per acre. Rs.	A.	P.
Magayi	1,338	785	10	8	or	0	9	5
Kyetpyugan	119	351	15	8	or	2	15	2

Cutting creepers.

33. Rupees 167-7-0 were spent on cutting creepers in the Chaungzauk reserve and Rs. 4 on similar work in Kangyi reserve.

(*e*) *Teak sowings in areas of flowered bamboos.*

Teak sowings.

34. In the Kôn-Bilin reserve 82 acres were stocked at a cost of Rs. 1,149-13-9, or Rs. 14-0-4 per acre. The cost is high, owing to the seed failing to germinate, which necessitated the bringing of seedlings from a distance.

Expenditure under A—VIII (*d*).

35. The total amount spent under A—VIII (*d*) was Rs. 36,003-9-7 including the expenditure already enumerated and Rs. 60 for establishment at Kywemakaing; Rs. 762 for establishment at Magayi, Rs. 39-10-11 for sundries at Magayi, Rs. 30-0-1 for sundries at Kyetpyugan, Rs. 37 for teak taungyas of the previous year in Tharrawaddy, Rs. 492-15-3 for boards denoting the years of planting the teak taungyas in Tharrawaddy, and Rs. 1,700-9-6 for teak-seed in Tharrawaddy and Rangoon.

(*f*) *Experiments and Exotics.*

Mahogany in Prome and Toungoo.

36. Only six mahogany plants remain in the Chaungzauk reserve and 12 in the Saing Yane and Pyunchaung reserves.

Tharrawaddy forest garden.

37. The up-keep of the forest garden at Tharrawaddy cost Rs. 960-2-9. No additions were made during the year.

Exotics at Magayi.

38. At Magayi *Chevanessia esculenta* is doing well and of 1,260 plants 580 are bearing fruit. Only 31 mahogany remain. There are 63 ceara rubber trees of which 26 are seeding; of *ficus elastica* 25 trees are thriving. The vanilla plants are healthy, many flowered and set pods, but these were attacked by insects and only four remain.

7.—*Communications and Buildings.*

(*a*) *Roads, Bridges, and Streams.*

Roads.

39. In the Rangoon division Rs. 29-2-8 were spent on repairs to the Palon-Kinpadi road, Rs. 43-12-0 on clearing path from Kinpadi to Mwehauk, Rs. 3 on path from Shawbôn to Midôk, and Rs. 20 on paths in Zamayi. In Toungoo Rs. 19-8-0 were spent on paths in Kabaung and Pyunchaung.

Streams.

40. In the Tharrawaddy division an expenditure of Rs. 805-4-3 was incurred on protecting the bridges and embankments on the Thonzè, Bilin, and Taungnyo streams; Rs. 312-2-0 were spent on repairs to the bund along the Taungnyo stream, which has been much improved and is now a very fair floating stream; Rs. 1,919-3-3 (of which Rs. 1,233-12-0 were paid for explosives) were spent on blasting obstructions in floating streams in the Bilin and Kon-Bilin forests which have been thereby vastly improved.

(*b*) *Buildings.*

Buildings.

41. In the Thayetmyo division a bungalow at headquarters was bought for Rs. 4,000 and Rs. 91 were spent on painting and earth-oiling it. In the Prome division Rs. 86-9-6 were spent on minor repairs to buildings. In the Tharrawaddy division three rest-houses were built at Kywemakaing, Kunzan, and Bawbin at a cost of Rs. 1,500; there is now little danger of their being again destroyed by dacoits, and it is hoped that the remaining rest-houses will be completed in 1891-92. Rs. 623-1-6 were spent on repairs. In the Rangoon division Rs. 321-0-3 were spent on repairs to building at Taikgyi, Pegu, Illègu, Palôn, and Kinpadi. In the Toungoo division the headquarter bungalow was rebuilt at a cost of Rs. 3,258; minor repairs to buildings cost Rs. 77-4-0 and establishment Rs. 282-9-3. In the Shwegyin division repairs cost Rs. 190 for the bungalow at Shwegyin, Rs. 100 for that at Myitkyo, and Rs. 10 for the elephant shed. In the Western division the elephant shed was repaired at a cost of Rs. 35. Rs. 1,442-2-0 were spent on repairs to buildings at the Timber depôt in Rangoon.

CHAPTER IV.

YIELD AND WORKING.

1.—*Departmental Operations.*

Outturn.

42. During the year 31,671 teak logs and 231 logs of other kinds were extracted. Details follow:

Division.	Extracted.	Sold locally.	Made over to contractors.	Used or lost.	Sent to Rangoon.
Teak Logs.					
Thayetmyo	1,660	272	420	4	816
Prome	3,412	753	...	2	2,637
Tharrawaddy	13,188	10	...	...	13,178
Rangoon	5,212	...	...	...	5,212
Toungoo	5,127	2	...	...	5,125
Western	56	71	...	...	...
Total ...	28,655	1,108	420	6	26,968
Refuse and small teak logs.					
Prome	662	447	...	...	...
Tharrawaddy	2,354	15,442	...	1	...
Logs of other kinds.					
Rangoon	181	50	...	1	130
Toungoo	50	...	...	...	50

The outturn may be regarded as an average one, but it falls short of the exceedingly favourable one of 1889-90.

Cost of extraction.

43. The cost of extraction was as follows:

		Logs.		Average per log.	
			Rs. A. P.	Rs. A. P.	C. ft.
Thayetmyo	to Rangoon ...	581	5,612 0 0	9 10 7	42
		230	Not paid for.		
	Local	849	420 logs to contractors.		
	Total ...	1,660	5,612 0 0	...	...
Prome	to Rangoon ...	1,001	8,748 0 0	8 11 10	46
		1,636	Not paid for.		
	Local ...	315	629 0 4	2 0 0	...
		460	Not paid for.		
	Small ...	215	625 13 0	2 14 7	19
		447	Paid for last year.		
	Total ...	4,074	10,002 13 4	...	...
Tharrawaddy	to Rangoon	12,979	137,282 7 0	10 9 8	47
	Local	10	91 14 0	...	...
	to Rangoon	199	Paid for last year.		
	Small	2,354	5,017 2 6	2 2 1	12
	Total ...	15,542	142,391 7 6	...	...
Rangoon	to Rangoon ...	5,115	65,100 9 1	12 11 8	49
		97	Not paid for.		
	Other kinds ...	140	1,345 8 0	9 9 9	43
		41	Paid for last year.		
	Total ...	5,393	66,446 1 1	...	...
Toungoo		1,000	Last year's outturn.		
		5,093	111,088 5 3	18 8 8	47
		84	Not paid for.		
	Total ...	5,177	111,088 5 3	...	...
Western		56	Half proceeds paid to contractors.		
	Total ...	...	335,540 11 2	...	...
Establishment and sundries, of which Rs. 17,918-2-5 are expenses incurred at the Rangoon depôt.		...	24,563 8 11	...	...
	Total under A—I (*a*) ...	...	360,104 4 1	...	...

Outstandings.

44. The outstandings against contractors at the close of the year were—

	Rs.	A.	P.
Prome	10,715	13	1
Tharrawaddy	5,430	9	9
Toungoo	8,008	12	0
Western	55	0	0
Total ...	24,210	2	10

There are no doubtful debts in this amount, which would have been unusually small if the Prome Divisional Officer had paid for timber delivered during the year.

2.—*Removal of Produce by Purchasers.*

(a) *Timber.*

Timber extracted by purchasers.

45. The following statements give abstracts of all transactions :—

FROM RESERVES.

Teak.

	C. feet.	Rs.	A.	P.
Prome	2,250	450	0	0
Toungoo	73,902	31,040	0	0
Total ...	76,152	31,490	0	0

Reserved Woods.

	C. feet.	Rs.	A.	P.
Tharrawaddy	1,527	369	1	0
Rangoon	2,500	250	0	0
Total ...	4,027	619	1	0

Unreserved Woods.

	Dugyis.	Yathits.	C. feet.	Rs.	A.	P.
Prome	2,095	1,026	93,893	6,783	0	0
Tharrawaddy	496	231	30,908	1,688	0	0
Rangoon	5,827	894	318,170	16,812	8	0
Total ...	8,418	2,151	442,971	25,283	8	0

FROM UNRESERVED FORESTS.

Teak.

	C. feet.	Rs.	A.	P.
Thayetmyo	9,496	2,610	5	6
Prome	4,850	706	13	6
Tharrawaddy	19,133	5,156	4	4
Rangoon	729	172	8	9
Toungoo	884,438	369,992	14	3
Shwegyin	60,896	22,494	6	2
Western	6,060	1,207	11	1
Total ...	985,102	402,340	15	7

Reserved Woods.

	C. feet.	Rs.	A.	P.
Tharrawaddy	11,200	1,813	0	9
Rangoon	6,155	966	2	3
Toungoo	46,903	4,410	3	3
Shwegyin	121,078	11,100	5	1
Western	20,058	3,177	1	0
Total ...	205,894	21,466	12	4

	Dugyis.	Yathits.	Posts.	Poles.	Sawn timber.	Cubic feet.	Amount.		
							Rs.	A.	P.
Thayetmyo ...	1,574	10,348	30,691	13,150	...	641,820	12,341	7	8
Prome ...	2,124	5,868	2,866	2,800	11,346	216,932	8,909	10	3
Tharrawaddy ...	3,394	5,867	1,650	200	1,250	801,365	9,788	9	4
Rangoon ...	3,131	2,095	2,860	150	...	276,750	6,486	14	9
Toungoo ...	6,764	2,288	1,423	12,175	...	402,250	12,930	11	8
Shwegyin ...	6,914	5,106	3,648	700	...	302,218	14,575	12	6
Western ...	18,816	16,272	49,115	716,724	...	1,641,881	48,623	2	10
Agency ...	...	...	...	2,845	...	2,067	101	13	0
Total ...	42,717	47,794	92,248	748,744	12,596	3,845,288	112,808	1	2

Fees on removal passes.

	Rs.	A.	P.
Thayetmyo	6	7	6
Prome	9	10	8
Rangoon	36	1	6
Western	728	12	1
Total ...	780	15	4
Revenue from Arakan ...	2,920	8	2
Total ...	597,709	13	7
Outstanding at close of year ...	5	4	11
Revenue under II (*a*) ...	597,704	8	8

This is an excess of Rs. 1,39,242 over the receipts of 1889-90. The increase is due to the extraction, under their contract, of teak timber by Messrs. Macgregor and Company

Firewood and charcoal

46. The transactions in firewood and charcoal were—

FROM RESERVES.

Firewood.

	C. feet.	Rs.	A.	P.
Tharrawaddy	80,557	671	5	0
Rangoon	175,380	1,873	14	5
Total ...	255,937	2,545	3	5

being for the most part fuel extracted by the Railway Department.

FROM UNRESERVED FORESTS.

Firewood.

	C. feet.	Rs.	A.	P.
Tharrawaddy	123,500	91	12	0
Rangoon	5,600	65	0	0
Toungoo	1,600	6	10	0
Shwegyin	7,600	190	0	0
Agency	2,976,993	16,029	3	9
Total ...	3,115,293	16,382	9	9

Charcoal.

	(Estimate in cubic feet of wood.)	Rs.	A.	P.
Thayetmyo	68,100	118	8	0
Prome	169,920	286	0	0
Tharrawaddy	15,750	17	8	0
Rangoon	166,800	1,112	0	0
Toungoo	96,000	160	0	0
Shwegyin	93,000	155	0	0
Western	101,400	170	0	0
Total ...	710,970	1,969	0	0
Total II( ) ...		20,896	13	2

This is a decrease as compared with the previous year of Rs. 3,716. A smaller amount of firewood has been brought to Rangoon, and this is accounted for by the mills burning paddy-husk and saw-dust instead of firewood.

(*b*) *Minor forest produce.*

Bamboos.

47. The revenue from bamboos from reserves was—

	Rs.	A.	P.
Thayetmyo	29	4	0
Prome	55	4	0
Tharrawaddy	2,930	4	0
Rangoon	2,356	8	0
Toungoo	94	15	0
Shwegyin	22	10	0
Total ...	5,488	13	0

an excess of Rs. 78 over the revenue of previous year.

Grazing.

48. Grazing in reserves brought in—

	Rs.	A.	P.
Tharrawaddy	91	4	0
Rangoon	161	4	0
Total ...	252	8	0

Rupees 33 in excess of previous year.

Other minor produce from reserves.

49. Other minor produce from reserves yielded—

Division.	Cutch.	Shaw fibre.	Cigar leaves.	Laterite.	Wood-oil.	Thatch and saln.	Canes.	Honey.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Thayetmyo	...	5	...	...	...	...	...	...	524	529
Prome	...	201	2	...	24	3	...	.	...	230
Tharrawaddy	28,635	141	101	...	65	28	...	5	10	28,985
Rangoon	...	244	...	13	...	40	20	...	146	463
Toungoo	...	25	...	...	...	2	89	...	...	116
Shwegyin	...	163	...	...	...	...	...	...	20	183
Total ...	28,635	779	103	13	89	73	109	5	700	30,506

This is a decrease of Rs. 60,147 on cutch and a slight increase of revenue from other sources. The sales of cutch licenses in the Tharrawaddy reserves will now be kept within the capability of the forests to maintain a sustained outturn as ascertained by the working plan.

Minor produce from unreserved forests.

50. From unreserved forests were obtained—

Division.	Cutch.	Resin.	Wood-oil and thitsi.	Total.
	Rs.	Rs.	Rs.	Rs.
Thayetmyo	25,930	40	...	25,970
Prome	4,660	...	134	4,794
Tharrawaddy	2,760	...	110	2,870
Rangoon	...	...	52	52
Toungoo	600	4	740	1,344
Shwegyin	140	...	260	400
Western	2,620	...	12	2,632
Total ...	36,710	44	1,308	38,062

A decrease of Rs. 29,485 on cutch as compared with last year. This was foreseen, and in the coming year no revenue is expected from this source. The revenue of the year under II (*e*) was Rs. 68,567-9-0. Rs. 4,205 outstanding at the beginning of the year were received, but Rs. 360 of the year's revenue were not recovered at the close of the year. The actuals of the year show a decrease of Rs. 89,033 as compared with last year.

3.—Free Grants.

Free grants.

51. Free grants of timber for works of public utility during the year amounted to 7,100 cubic feet of teak, 6,200 cubic feet of reserved woods, and 760 cubic feet of unreserved woods.

4.—Summary of Outturn.

Summary of outturn.

52. The outturn of timber and fuel in the circle was—

How extracted.	Teak.	Other reserved. woods.	Unreserved woods.	Fuel.	Bamboos.
	C. ft.	C. ft.	C. ft.	C. ft.	No.
By Government agency ...	1,870,554	9,018	2,500	...	...
By purchasers	1,061,254	209,421	4,288,254	4,082,200	2,193,395
By right-holders	...	...	...	...	31,950
Under free grants	7,100	6,200	760	...	...
Total ...	2,438,908	224,639	4,291,514	4,082,200	2,225,345

This is a decrease on last year's outturn of 24 per cent. on teak, 16 per cent. on unreserved woods; an increase of 149 per cent. on other reserved woods, and a trifling increase on bamboos. There was an increase of 1 per cent. on fuel; an error has been discovered in the figures given in last year's report.

5.—Drift Operations.

Drift timber.

53. The following table gives the result of the drift timber operations:—

Division.	Balance, 1889-90.	Collected, 1890-91.	Returned to claimants.	Sold.	Drifted.	Sent to Rangoon.	Balance.
	Logs.	Logs.	Logs.	Logs.	Logs.	Logs.	Logs.
Thayetmyo	100	792	339	102	89	126	236
Prome	69	310	192	89	...	...	98
Tharrawaddy ...	...	47	...	47	...	...	...
Rangoon	...	612	...	133	...	479	...
Toungoo	156	5,040	4,684	353	4	...	155
Shwegyin	203	5,573	5,390	188	1	...	197
Western	210	670	270	409	12	54	135
Agency	273	743	1,220	215	...	...	240
Total Logs ...	1,011	13,787	12,095	1,586	106	659	1,061

The number of logs collected was 17 per cent. less than in the previous year. The expenditure under A—III was Rs. 16,529-8-8, or 52 per cent. less than in the previous year.

6.—*Girdling.*

Girdling.

54. In unreserved forests the girdling of teak trees was—

Thayetmyo division	Kama range	600
	Myedè range	600
Prome division, Nawin range		500
Toungoo division	Thagaya range	2,620
	Zeyawaddi range	4,877
Shwegyin division, Baingda range		1,000
	Total ...	10,197

In reserved forests the following girdlings were undertaken :—

Tharrawaddy division	Thônzè forest	364
	Bôn-Bilin	811
	Kadin-Bilin	994
	Môkka	448
	Minhla	606
	Gamôn	1,166
	Bawbin	1,068
Rangoon division	North Zamayi	300
	South Zamayi	200
	Kadat	500
	Total ...	5,952

In the Thayetmyo division no less than 430 undersized trees were girdled owing to the Ranger being summoned to attend a Magistrate's Court during the progress of the work, when instead of stopping work he entrusted it to a forest guard; the Ranger was fined. In the Toungoo division work had not been completed owing to Mr. Hoghton being sent on special duty to Karenni and taking away with him the elephants belonging to the division; there were still 1,776 trees to girdle.

7.—*Disposals and Sale Depôts.*

Local sales under I (*a*).

55. The local sales of timber extracted by Government agency were—

Teak.

	Logs.	C. feet.	Rs.	A.	P.
Thayetmyo	272	7,070	4,050	15	7
Prome	1,200	30,175	7,304	13	7
Tharrawaddy	15,452	298,990	68,816	15	6
Toungoo	2	100	40	0	0
Western	71	1,711	511	13	2
Total ...	16,997	338,046	80,724	9	10

Other kinds.

	Logs.	C. feet.	Rs.	A.	P.
Rangoon	50	2,500	550	0	0

Depôt sales.

The sales at the Rangoon depôt were—

Teak.

	Logs.	C. feet.	Rs.	A.	P.
	30,652	1,490,675	12,79,817	0	11

Other kinds.

	Logs.	C. feet.	Rs.	A.	P.
	126	6,701	2,899	3	11
	47,825	1,832,922	13,68,990	14	8
Add outstanding from last year			10,970	0	0
			13,74,960	14	8
Deduct outstanding at close of year			37,445	0	0
Actual receipts			13,37,515	14	8

Paddy-field teak.

56. The profit-and-loss account of paddy-field teak logs in the Tharrawaddy division stands as follows:

Particulars.	Rs.	Amount. Rs. A. P.	Particulars.	Rs. A. P.	Amount. Rs. A. P.
Stock in hand 1st April 1890—			Sales, 15,442 logs ...	93,792 12 0	
15,602 logs at Rs 5 ...	78,010		Less deposit ...	25,542 0 0	68,250 12 0
Less deposit ...	25,542		Stock in hand 31st March 1891—		
		52,468 0 0	2,513 logs at Rs. 5 each.	12,565 0 0	
Delivery of 2,354 logs ...		5,017 2 6	Less deposit ...	200 0 0	
Establishment, say		500 0 0			12,365 0 0
Depôt expenses		57 1 6			
Rent		239 5 0			
Total ...		58,281 9 0			
Profit ...		22,334 3 0			
GRAND TOTAL ...		80,615 12 0	GRAND TOTAL ...		80,615 12 0

Rangoon depôt.

57. The transactions at the Rangoon Central depôt are shown in the following table :—

Description.	Balance on 1st April 1890.		Arrivals during the year.		Sales and disposals during the year.		Balance on 31st March 1891.	
	Logs.	Cubic feet.	Logs.	Cubic feet.	Logs.	Cubic feet.	Logs.	Cubic feet.
Teak	26,338	1,304,228	26,968	1,272,410	30,652	1,490,675	22,649	1,085,963
Teak sleepers ...	42	63	...	...	...	...	42	63
Woods of other kinds...	1	85	180	8,968	126	6,701	55	2,352
Teak drift ...	270	11,518	1,271	41,948	1,427	47,214	114	6,247
Other kinds, drift ...	8	112	5	162	8	274	...	...
Total ...	26,649	1,316,006	28,424	1,323,488	32,213	1,544,864	22,860	1,094,625

The arrivals during the year were 433,295 cubic feet less than in the previous year and the balance on hand 221,381 cubic feet less than the closing balance in 1889-90. The stock in hand has been valued at Rs. 7,05,316, or Rs. 84,164 against the year.

Sales in Rangoon.

58. The sales gave the following results :—

	Logs.	Rs. A. P.	Per ton. Rs. A. P.
Selected timber on indent ...	3,711	3,38,181 6 11	75 12 8
By tender	5,749	2,70,597 13 11	37 14 6
By auction	21,318	6,78,937 0 0	36 13 10
Total ...	30,778	12,82,716 4 10	42 13 3

or Rs. 10-2-7 per ton less than in the previous year. Prices ruled much lower, and in July and August the auctions brought in less than Rs. 29 per ton. Since then there has been a great improvement and at the March sale Rs. 44-8-8 per ton were obtained.

Sales under A—III.

59. Sales of unclaimed drift were—.

Teak.

	Logs.	Rs. A. P.
Thayetmyo	102	3,794 11 2
Prome	77	1,869 6 0
Tharrawaddy	17	168 4 6
Rangoon	17	627 4 6
Toungoo	351	3,988 15 4
Shwegyin	140	1,443 0 0
Western	408	9,697 5 10
Agency	207	3,792 0 0
Total ...	1,319	25,375 15 4

Other Woods.

	Logs.	Rs.	A.	P.
Prome	12	9	8	0
Tharrawaddy	30	3	0	0
Rangoon	116	379	0	0
Toungoo	2	25	0	0
Shwegyin	48	88	0	0
Western	1	3	0	0
Agency	8	185	0	0
Total ...	217	642	8	0

Salvage on logs delivered to claimants amounted to—

	Logs.	Rs.	A.	P.
Thayetmyo	389	1,442	14	0
Prome	192	479	4	0
Toungoo	4,684	10,726	4	0
Shwegyin	5,390	6,117	12	0
Western	270	1,270	1	0
Agency	1,220	4,345	3	2
Total ...	12,095	24,381	6	2
		50,399	13	6
Add outstandings from previous year		444	15	0
		50,844	12	6
Deduct outstandings at close of year		1,317	4	0
Actual receipts under A—III		49,527	8	6

CHAPTER V.

EXPORT OF TIMBER.

Export of teak.

60. The export of teak from Rangoon amounted 110,888 tons valued at Rs. 78,75,794, an increase in quantity of 7 per cent. and a decrease in value of 4 per cent. Of the total quantity Bombay took 35 per cent., Calcutta 22 per cent., Europe 22 per cent., Madras 15 per cent., and other ports 6 per cent.

Export of timber other than teak.

61. The export of other timber than teak amounted to 1,618 tons valued at Rs. 1,00,618, a decrease of 38 per cent. in quantity and of 41 per cent. in value.

Export of cutch and lac.

62. Cutch exports were 203,350 cwts., a decrease of 16 per cent., and stick-lac exports amounted to 4,738 cwts., an increase of 111 per cent. Further details are given in Appendix C.

CHAPTER VI.

FINANCIAL RESULTS.

Financial results.

63. The revenue and expenditure of the year amounted to—

		Rs.
Revenue		21,03,322
Expenditure	(A) 4,91,367 (B) 2,13,056	7,04,423
Surplus ...		13,98,899

The surplus will be reduced more than Rs. 50,000 by a debit on account of the forest share of the survey party.

Comparison with previous years.

64. The figures of the previous three years compare as follows:

Year.	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1887-88	16,75,094	7,03,320	9,71,774
1888-89	19,39,488	8,06,198	11,33,290
1889-90	24,01,158	9,05,272	14,95,886
1890-91	21,03,822	7,04,423	13,98,899

Comparison with previous year.

65. Timber extracted departmentally yielded Rs. 3,35,196 less; the expenditure incurred was Rs. 1,72,317 less; the result against the year being Rs. 1,62,879.

Timber and forest produce extracted by purchasers yielded Rs. 50,449 more, the expenditure was Rs. 236 more, the result in favour of the year being Rs. 50,213.

Drift operatione show a revenue Rs. 11,854 less and an expenditure Rs. 18,152 less, the result being Rs. 6,298 in favour of the year.

Under miscellaneous collection the revenue has decreased Rs. 1,235 and the expenditure Rs. 4,260, the result being Rs. 3,025 in favour of the year.

The expenditure on communications and buildings increased Rs. 3,792 and on demarcation and improvement Rs. 11,259. The expenditure on establishment showed an increase of Rs. 6,862 on travelling allowances, a decrease of Rs. 368, and contingencies a decrease of Rs. 1,073.

66. The following statement shows the revenue and expenditure of the year for each division:—

Division.	Revenue.			Expenditure.			Surplus.
	Local collections.	Agency collections.	Total.	Local.	Agency.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Thayetmyo ...	57,939	28,391	86,330	38,278	8,037	36,315	50,015
Prome	35,813	75,536	1,11,349	41,507	7,618	49,125	62,224
Tharrawaddy ...	1,29,800	6,66,098	7,95,898	2,26,191	50,527	2,76,718	5,19,180
Rangoon	33,182	2,05,522	2,38,704	1,04,788	15,573	1,20,361	1,18,343
Toungoo	4,34,491	2,70,208	7,04,699	1,52,452	19,806	1,72,258	5,32,441
Shwegyin	57,073	12,019	69,092	17,061	911	17,972	51,120
Western	68,492	1,665	70,157	29,404	140	29,544	40,613
Agency	...	27,093	27,093		2,130	2,130	24,963
Total ...	8,16,790	12,86,582	21,03,822	6,04,681	99,742	7,04,423	13,98,899

Summary of receipts and charges.

67. The usual comparison of receipts and charges with those of the last two years is as follows:

	Receipts.			Charges.			Surplus or deficit.					
	1888-89.	1889-90.	1890-91.	1888-89.	1889-90.	1890-91.	1888-89.		1889-90.		1890-91.	
							Surplus.	Deficit.	Surplus.	Deficit.	Surplus.	Deficit
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations	15,60,954	17,34,072	13,87,043	6,06,050	6,77,218	4,98,577	9,54,904	...	10,56,854	...	8,88,466	...
II.—Other revenue	3,78,529	6,67,086	7,16,279	70,417	76,203	70,025	3,08,112	...	5,90,883	...	6,46,254	...
III.—Formation and improvement.	...	...	...	1,29,726	1,51,852	1,35,821	...	1,29,726	...	1,51,852	...	1,35,821
Total ...	19,39,483	24,01,158	21,03,322	8,06,193	9,05,273	7,04,423	11,33,290	...	14,95,885	...	13,98,899	...

CHAPTER VII.

GENERAL.

Teak market in Europe.

68. The price for teak squares in the home market fell to £9-10-0 to £10 per ton. Planks 9 inches by 3 inches have also fallen in price and were sold at as low a figure as £10 per ton. A new feature has arisen in the trade, that is, a demand for plank and scantlings of special sizes, and for these £10-10-0 to £18 have been paid. Freights fell from £2-10-0 to £1-13-9 per ton, and the French buyers bought in anticipation of an import duty on teak being imposed on timber imported into France, and these circumstances account for the favourable prices obtained at auction in Rangoon towards the close of the year.

Alterations in rules.

69. Padauk was declared a reserved tree in the Pegu circle by Notification No. 201, dated the 19th November 1890. By Notification No. 178, dated the 23rd October 1890, boilers of decoctions of the bark of lein, taukkyan, panga, tè palan, yôn, and yinma must now obtain a license and pay Rs. 20, the same price as for cutch; no licenses have yet been applied for. Notification No. 85, dated the 12th June 1890, authorizes the sale of the right to collect wood-oil in certain defined tracts, as well as the existing practice of issuing licenses to individuals.

70. An experiment in the Prome division has elicited the following data with respect to the extraction of cutch:—

One cubic foot of cutch timber produces 1·36 viss of cutch.

One viss of cutch is obtained from 0·74 cubic feet of wood.

The average day's work of one cauldron consumes 11·61 cubic feet of wood and produces 15·75 viss of cutch.

In a year of 300 working days the production of one cauldron may equal 4,725 viss of cutch, entailing the consumption of 70 tons of cutch timber.

The quantity of cutch-producing timber obtained per tree has also been obtained, but the figures are unreliable. A further experiment is being undertaken in the Tharrawaddy division, the results of which will be made known when the experiment is completed.

Elephants.

71. The year opened with 37 elephants; one died during the year. The average monthly cost was Rs. 37-3-4.

Launch *Forester*.

72. The launch was employed 59 days or 607 hours under steam. She earned Rs. 285 against an expenditure of Rs. 2,824 of which Rs. 549-1-0 were for repairs.

Collection of seed and specimens.

73. Teak-seed was supplied to—

	Bags.
Conservator of Forests, Ceylon	3
Conservator of Forests, Hyderabad	3
Conservator of Forests, Assam	7
Conservator of Forests, Tenasserim	181

Specimens of forest produce were collected for the Indian Museum, Calcutta, and the Imperial Institute, London.

Transfer of Shwelè to Prome.

74. The Shwelè forests were transferred to the Prome division from the Tharrawaddy division. This makes the Prome division very nearly coincide with the civil districts and lessens the work of the Tharrawaddy division, which before was more than the Divisional Officer could do justice to.

Controlling staff.

75. Mr. E. P. Popert went on furlough in July and the writer of this report has since held charge of the circle. The services of Mr. E. P. Popert and Mr. H. Jackson were lost to the circle, and Mr. J. Nisbet was absent three months on privilege leave, this necessitated young and inexperienced officers being placed in charge of divisions. Fortunately the working season was an exceptionally healthy one and much valuable work has been done, and the Officiating Conservator is pleased to acknowledge the assistance rendered him by all gazetted officers.

Executive staff.

76. More and better work is expected from the subordinate staff than the men now in the service are capable of performing. No candidates for training at Dehra Dun are forthcoming and untrained men have been appointed to fill existing vacancies. The work done by subordinates during the year has, however, been more satisfactory than usual. Foresters Maung Shwe O and Maung Byaung are specially commended by the Prome Divisional Officer.

Office and agency.

77. Mr. R. E. Cully, who succeeded Mr. A. M. Buchanan, has done good work as Superintendent of the Conservator's office. Mr. Allmark has successfully managed the Rangoon depôt and Agency offices. With the exception of Thayetmyo and Tharrawaddy the work of the office establishments has not been worthy of commendation.

RANGOON:
The 15th June 1891.

P. J. CARTER,
Offg. Conservator of Forests, Pegu Circle.

APPENDICES.

ANNUAL FORM NO. 49 [PRESCRIBED].—*Area of Reserved Forests in the Tenasserim and Pegu Circles for the year 1890-91.*

Division.	Range.	Civil district or territory.	Name of forest.	Area on 1st April 1890.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1891.		No. and date of notification of addition or transfer.	Remarks
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
West Salween...	West Salween	Salween	Wamuchaung	1,920	3	...	...	1,920	3		
			Sinzwè	8,960	14	...	...	8,960	14		
			Kabilu	9,600	15	...	...	9,600	15		
			Minnanwè	3,840	6	...	...	3,840	6		
			Mèwaing	7,360	12	...	...	7,360	12		
			Upper Mèthalauk... ...	8,960	14	...	...	8,960	14		
			Lower Mèthalauk... ...	3,840	6	...	...	3,840	6		
		Shwegyin	Bilakatkyi	8,320	13	...	...	8,320	13		
			Ônkangyi	8,320	13	...	...	8,320	13		
		Amherst	Tagèlaung	5,120	8	...	...	5,120	8		
		Salween	Pachaung	25,600	40	...	...	25,600	40		
			Dagwin	6,400	10	...	...	6,400	10		
East Salween ...	East Salween.	Amherst	Kamawkala	5,760	9	...	...	5,760	9		
			East Mèpalè	38,400	60	...	...	38,400	60		
			Mètkanè	17,280	27	...	...	17,280	27		
			Mepalè	25,600	40	...	...	25,600	40		
			Kyaukket	12,160	19	...	...	12,160	19		
			Mégala	6,400	10	...	...	6,400	10		
			Winzaw	6,400	10	...	...	6,400	10		
			Mitlawè	12,160	19	...	...	12,160	19		
			South Myawaddi	150	...	...	...	150	...		
			Ônkaraing	33,920	53	...	...	33,920	53		
			Gawlè	37,120	58	...	...	37,120	58		
			Baledo	1,600	2	...	...	1,600	2		
Attaran ...	Attaran ...	Amherst	Dali	7,680	12	...	...	7,680	12		
			Pakabo	20,480	32	...	...	20,480	32		
			Natchaung	5,760	9	...	...	5,760	9		
			Gôngyi	27,520	43	...	...	27,520	43		
			Ma-u	8,960	14	...	...	8,960	14		
			Megwa	12,160	19	...	...	12,160	19		
			Thingannyinaung ...	5,760	9	...	...	5,760	9		
			Kyunchaung	10,880	17	...	...	10,880	17		
			Yè	202,880	317	...	...	202,880	317		
South Tenasserim.	Tavoy ...	Tavoy	Mintha	64,000	100	...	...	64,000	100		
	Mergui ...	Mergui	Kaleinaung	294,400	460	...	...	294,400	460		
			Ngawunchaung	192,000	300	...	...	192,000	300		
Kado ...	Kado ...	Shwegyin	Kyakatchaung	11,520	18	...	...	11,520	18		
			TOTAL TENASSERIM CIRCLE...	1,159,190	1,811	...	...	1,159,190	1,811		
			A.—CLASSED STATE FORESTS AND WASTE LANDS.								
			(a) *Reserved Forests.*								
Thayetmyo	Myedè ...	Thayetmyo	Tindaw	2,880	5	...	...	2,880	5		
			Satsuwa	4,800	7	...	...	4,800	7		
			East Yoma	71,680	112	...	...	71,680	112		
	Kama ...	Ditto	Saingdo	1,216	2	...	...	1,216	2		
			Thabala	6,080	9	...	...	6,080	9		
			Mindôn	166,400	260	...	...	166,400	260		
			Ngawet	3,200	5	...	...	3,200	5		
			Total Thayetmyo division...	256,256	400	...	...	256,256	400		

PROME	Nawin ...	Prome	Thitkat and Ayodaung ...	2,944	5	...	...	2,944	5		
			Thayetchaung and Nyaungbindet.	5,286	8	...	...	5,286	8		
			Kyèwmido	2,442	4	...	...	2,442	4		
			Nabebyu	3,840	6	...	...	3,840	6		
			Shwelaung and Pwegyin ...	13,120	21	...	...	13,120	21		
			Gwegyo	6,720	10	...	...	6,720	10		
			Chaungzauk	9,408	15	...	...	9,408	15		
			Ngaluxan	700				700			
			Shwekyundaw	256	2	...	...	256	-2		
			Prome plantation ...	73				73			
			East Yoma	97,600	152	...	...	97,600	152	...	Includes Karen area of 43 square miles.
			Tônye fuel reserve ...	13,625	21	...	...	13,625	21		
			Pauktaw fuel reserve ...	4,556	7	...	...	4,556	7		
			Sinmizwe fuel reserve ...	7,219	11	...	...	7,219	11		
	Shwele ...	Ditto ...	Shwele Yoma	35,475	55	...	...	35,475	55	..	Includes Karen area of 12 square miles.
			Dawlè	1,800	3	...	...	1,800	3		
			Kyaukgyidaung	2,600	4	...	...	2,600	4		
			Padetmyaung	4,500	7	...	...	4,500	7		
			Gwedaukkwin	11,494	18	...	...	11,494	18		
			Kyibyu	2,200	3	...	...	2,200	3		
			Shabaung	2,200	3	...	...	2,200	3		
			Kadinzauk and Kadin Thônzin.	3,500	6	...	...	3,500	6		
			Bwet	2,900		...	...	2,900	5		
			Upper Padinbin	576	1	...	...	576	1		
			Lower Padinbin	454	1	...	...	454	1		
			Tapan	108	...	...	...	108	...		
		Prome and Tharrawaddy.	Tayôkmaw and Inma ...	24,576	38	...	...	24,576	38		
			Total Prome division ...	260,172	407	...	...	260,172	406		
			Karen areas ...	35,200	55	...	...	35,200	55		
			Total area free of taungya privileges.	224,972	352	...	...	224,972	352		
THARRAWADDY	Bawbin ...	Tharrawaddy ...	Taungnyo	107,169	167	...	...	107,169	167	...	Includes Karen area of 44·02 square miles.
			Minbu Bawbin	83,331	130	...	...	83,331	130	...	Includes Karen area of 35·66 square miles.
			Thitcho	2,970	5	...	...	2,970	5		
			Kangyi	4,896	8	...	...	4,896	8		
			Myodwin	38	...	...	...	38	...		
			Chaungzauk	3,454	5	...	...	3,454	5		
	Gamôn ...	Ditto ...	Gamôn	47,757	75	...	...	47,757	75	...	Includes Karen area of 29·21 square miles.
			Taung	14,016	22	...	...	14,016	22	...	Includes Karen area of 8·43 square miles.
			Minhla	25,453	40	...	...	25,453	40	...	Includes Karen area of 6·43 square miles.
			Taukkyan	3,138	5	..	...	3,138	5		
			Thakolan	1,134	2	...	...	1,134	2		
			Chaungnagôn	350	1	...	...	350	1		
			Satpôk	5,276	8	80*	...	5,356	8		
			Carried forward ...	298,982	468	80	...	299,062	468		

* By alterations consequent on accurate survey.

ANNUAL FORM NO. 49 [PRESCRIBED].—*Area of Reserved Forests in the Tenasserim and Pègu Circles for the year 1890-91*—concluded.

Division.	Range.	Civil district or territory.	Name of forest.	Area on 1st April 1890.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1891.		No. and date of notification of addition or transfer.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
			Brought forward ...	298,982	468	80	...	299,062	468		
THARRAWADDY—*concluded.*	Bilin ...	Tharrawaddy	Mókka	22,406	35	...	...	22,406	35	...	Includes Karen area of 10·28 square miles.
			Kadin-Bilin	53,363	83	...	...	53,363	83	...	Includes Karen area of 21·33 square miles.
			Kôn-Bilin	15,987	25	...	...	15,987	25	...	
			Thônzè	69,734	109	...	...	69,734	109	...	Includes Karen area of 14·80 square miles.
			Sitkwin	2,837	4	...	...	2,837	4	...	
			Thindawyo	6,551	10	...	...	6,551	10	...	
			Total Tharrawaddy division	469,860	734	80	...	469,940	734		
			Karen areas ...	109,606	171	...	...	109,606	171		
			Total area free of taungya privileges.	360,254	563	80	...	360,334	563		
RANGOON ...	Paunglin	Hanthawaddy ...	Kyetpyugan	940	1	...	...	940	1	...	
	Zinbadi...	Ditto	Magayi	12,800	20	...	...	12,800	20	...	
			Ôkkan	80,000	125	...	...	80,000	125	...	Includes Karen area of 13 square miles.
	Hlaing ...	Ditto	Hlaing Yoma	59,520	93	...	...	59,520	93	...	
			Hmawbi fuel reserve ...	1,846	3	...	...	1,846	3	...	
			Kyun fuel reserve ...	8,440	13	...	...	8,440	13	...	
			Thitpyat fuel reserve ...	1,280	2	...	...	1,280	2	...	
			Thabyn fuel reserve ...	8,000	13	...	...	8,000	13	...	
			Wanetchaung fuel reserve ...	4,750	7	...	...	4,750	7	...	
	Pegu ...	Tharrawaddy ...	Upper Zamayi	145,920	228	...	...	145,920	228	...	Includes Karen area of 88·5 square miles.
	Ditto ...	Pegu	Lower Zamayi	112,000	175	...	...	112,000	175	...	Includes Karen area of 18·5 square miles.
			Kadat	64,000	100	...	...	64,000	100	...	
			Letpan	10,880	17	...	...	10,880	17	...	
			Paunglin	68,480	107	...	...	68,480	107	...	
			South Zamayi extension ...	1,280	2	...	...	1,280	2	...	Includes Karen area of 7 square miles.
			Total Rangoon division ...	580,136	906	...	...	580,136	906		
			Karen areas ...	81,280	127	...	...	81,280	127		
			Total area free of taungya privileges.	498,856	780	...	...	498,856	780		
	Thagaya	Toungoo	Saing-Yanè	70,440	110	...	...	70,440	110		
			Saing-Yanè extension ...	...	...	301	...	301	...	Notification No. 58F., dated 16th April 1890.	
			East Swa	17,280	27	...	...	17,280	27		
			West Swa	38,400	60	...	...	38,400	60		
			Lônyan	10,880	17	...	...	10,880	17		
			Sabyin	26,240	41	...	...	26,240	41		
			Kyaukmasin	20,480	32	...	...	20,480	32		
			Gwethe	33,280	52	...	...	33,280	52		
			Myohla	12,160	19	...	...	12,160	19		

TOUNGOO	Zeyawadi	Ditto.	Bondaung	25,000	40	...	...	25,000	40	...	Includes Karen area of 65·5 square miles.
			Kabaung	220,800	345	...	...	220,800	345	...	Includes Karen area 30 square miles.
			Pyuchaung	59,520	93	...	...	59,520	93	...	
			Nyaungkyidauk	...	...	2,240	...	2,240	4	Notification No. 17F., dated 21st January 1891.	
			Kyungon	...	...	2,560	...	2,560	4	Notification No. 18F., dated 21st January 1891.	
			Kanyutkwin	...	...	12,800	...	12,800	20	Notification No. 19F., dated 21st January 1891.	
	Bonmadi	Ditto	Kanni	280	...	...	...	280	...		
			Pyunchaung	3,400	5	...	...	3,400	5		
			Gônwe	6,400	10	...	...	6,400	10		
	Kyathaung-daung.	Ditto.	Thandaung	12,025	19	...	...	12,025	19		
			Total Toungoo division...	537,185	870	17,901	...	575,086	899		
			Karen areas	61,120	95	...	...	61,120	95		
			Total area free of taungya privileges.	496,065	775	17,901	...	513,966	804		
SHWEGYIN	Sittang ...	Shwegyin	Kyundaung	960	1	...	...	960	1		
	Kyaukkyi	Ditto	Kyundaung extension ...	3,840	6	...	...	3,840	6		
			Binbyè	6,400	10	...	...	6,400	10		
			Upper Kanyinmyaung ...	8,320	13	...	...	8,320	13		
			Lower Kanyinmyaung ...	28,800	45	...	...	28,800	45		
	Bawni ...	Ditto	Tôngan	20,480	32	...	...	20,480	32		
			Yenwe	160,000	250	...	...	160,000	250		
			Nyabwa...	56,320	88	...	...	56,320	88		
			Total Shwegyin division...	285,120	445	...	...	285,120	445		
TOTAL PEGU CIRCLE.	...	(a) Area free of taungya privileges		2,121,523	3,315	17,981	...	2,139,504	3,343		
	...	(b) Karen areas		287,206	449	...	...	287,206	449		
	...	(c) Area of (a) (b)		2,408,729	3,764	17,981	...	2,426,710	3,792		
TOTAL TENASSERIM CIRCLE.	...	(a) Area free of taungya privileges		1,151,510	1,799	...	...	1,151,510	1,799		
	...	(b) Karen areas		7,680	12	...	...	7,680	12		
	...	(c) Area of (a) (b)		1,159,190	1,811	...	...	1,159,190	1,811		
GRAND TOTAL LOWER BURMA.	...	(a) Area free of taungya privileges		3,273,033	5,114	17,981	...	3,291,014	5,142		
	...	(b) Karen areas		294,886	461	...	...	294,886	461		
	...	(c) Area of (a) (b)		3,567,919	5,575	17,981	...	3,585,900	5,603		

ANNUAL FORM NO. 50 [PRESCRIBED].—*Prosecutions for Breaches of Forest Rules in the Tenasserim Circle for the year 1890-91.*

Forest division and civil district.		Cases pending from 1889-90.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.	Remarks.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.			
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
Attaran division, Amherst district	a	...	...	3	...	...	3	3	2	2	1	1	3	3	...	
	b	...	...	6	...	...	6	6	6	9	...	...	6	9	...	
	c	...	...	...	...	...	...	...	...	...	...	...	..	...	...	
Total		...	...	9	...	...	9	9	8	11	1	1	9	12	...	
East Salween division, Amherst district	a	...	...	2	...	...	2	2	1	1	1	2	2	3	...	
	b	...	...	1	1	...	2	2	1	1	...	...	1	1	1	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total		...	...	3	1	...	4	4	2	2	1	2	3	4	1	
West Salween division, Amherst district	a	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	b	...	...	3	...	...	3	3	3	3	...	...	3	3	...	
	c	...	...	...	...	...	...	...	...	...	...	...	..	...	...	
Total		...	...	3	...	...	3	3	3	3	...	...	3	3	...	
Kado division, Amherst district	a	...	...	...	...	116	116	116	116	141	...	...	116	141	...	
	b	...	...	10	...	11	21	21	21	43	...	...	21	43	...	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total		...	...	10	...	127	137	137	137	184	...	...	137	184	...	
South Tenasserim division, Tavoy district	a	...	...	2	...	19	21	21	16	18	5	5	21	23	...	
	b	...	...	15	3	2	20	20	20	34	...	...	20	34	...	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total																
Mergui distric	a	...	...	7	...	...	7	7	5	10	2	7	7	17	...	
	b	...	..	...	...	...	...	...	...	...	...	...	...	...	...	
	c	...	...	...	...	...	...	...	...	...	...	...	...	..	...	
Total		...	...	24	3	21	48	48	41	62	7	12	48	74	...	
GRAND TOTAL TENASSERIM CIRCLE		...	...	49	4	148	201	201	191	262	9	15	200	277	1	

Fifty-one cases were compounded under Rule 66 of the Forest Rules; Rs. 1,096 were received as compensation.

a. Cases prosecuted. | *b* Cases compounded. | *c.* Cases undetected.

ANNUAL FORM NO. 50 [PRESCRIBED.]—*Prosecutions for Breaches of Forest Rules in the Pegu Circle for the year 1890-91.*

Forest division.		Cases pending from 1889-90.	New cases of the year. Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce	Grazing without permission or in tracts in which grazing is prohibited.	Other offences	Total new cases of the year	Total cases.	Disposed of during the year. Convictions. Cases.	Convictions. Persons.	Acquittals. Cases	Acquittals. Persons.	Total. Cases.	Total. Persons	Cases pending at close of year.	Remarks.
Thayetmyo district	a	...	...	51	...	...	51	51	34	34	17	17	51	51	...	
	b	...	...	168	...	...	168	168	168	174	...	..	168	174	...	
	c	...	...	...	.	...	.	...	...	..	...	..	...	..	...	
Prome district	a	...	...	18	...	...	18	18	17	18	1	1	18	19	.	
	b	...	...	221	...	...	221	221	221	260	...	...	221	260	...	
	c	...	...	...	...	..	...	...	.	...	...	...	..	..	...	
Tharrawaddy, Prome district	a	(d)	...	...	...	...	...	...	...	...	...	...	...	...	...	(d) One case shown in error last year.
	b	...	2	24	...	...	26	26	26	28	...	...	26	28	..	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Tharrawaddy district	a	...	3	7	.	...	9	9	6	15	...	...	6	15	2(e)	(e) One offender absconded.
	b	29	...	164	16	18	198	227	200	237	...	...	200	237	27	
	c	...	6	4	...	...	10	10	...	...	...	...	...	...	...	
Rangoon, Hanthawaddy district	a	...	...	2	...	...	2	2	...	...	...	...	..	...	2	
	b	...	...	...	...	...	...	...	...	...	...	...	...	...	..	
	c	...	...	.	...	...	...	...	...	...	...	...	...	...		
Toungoo district	a	(f)	...	1	...	1	2	2	2	2	...	...	2	2	...	(f) In five cases shown the offenders absconded.
	b	...	...	1	...	19	20	20	20	20	...	...	20	20	..	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Shwegyin district	a	...	...	2	...	1	3	3	2	2	...	...	2	2	1	
	b	...	...	3	...	1	4	4	4	4	...	...	4	4	...	
	c	...	...	...	...	1	1	1	...	...	...	...	..	...	...	
Western — Bassein district	a	...	...	2	...	...	2	2	2	4	...	...	2	4	...	
	b	...	...	3	...	...	3	3	3	3	...	...	3	3	...	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Western — Mau-bin district	a	...	...	9	...	...	9	9	9	13	...	...	9	13	...	
	b	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Western — Henzada district	a	...	...	5	...	...	5	5	4	4	...	...	4	4	1	
	b	...	...	7	...	...	7	7	7	10	...	...	7	10	...	
	c	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
GRAND TOTAL PEGU CIRCLE	a	...	2	97	...	2	101	101	76	92	18	18	94	110	6(e)	
	b	29	2	591	16	38	647	676	649	736	...	...	649	736	27	
	c	...	6	4	...	1	11	11	...	...	...	...	..	..	...	
GRAND TOTAL LOWER BURMA		29	10	741	20	169	960	969	916	1,090	27	33	943	1,123	34	

Six hundred and forty-nine cases were compounded under Rule 66 of the Forest Rules. Rs. 10,722-15-0 were paid as compensation

a. Cases taken into Court. | *b.* Cases disposed of under section 67 of the Indian Forest Act, 1878. | *c.* Cases undetected.

ANNUAL FORM NO. 51 [PRESCRIBED].—*Area of Forest Tracts protected from Fire during the dry season of 1890-91.*

Division.	Forest tract.	Year in which protection commenced.	Area actually protected up to 15th June 1890.	During dry season of 1891. Area attempted to be protected.	Failures.	Actually protected.	Cost during the season.	Remarks.
	TENASSERIM CIRCLE.		Acres.	Acres.	Acres.	Acres.	Rs.	
WEST SALWEEN	Sinzwè	1871	8,960	8,960	968	7,992	1,779	
	Wamu	1871	1,920	1,920	...	1,920	188	
	Kahilu	1878	2,560	2,560	24	2,536	216	
	Mewaing	1877	7,360	7,360	3	7,357	173	
	Minnanwè	1878	3,840	3,840	50	3,790	29	
	Ônkangyi	1877	6,275	6,300	964	5,336	76	
	Bilakatkyi	1877	6,656	6,656	6,256	400	38	
	Tagèlaung	1885	3,072	3,072	450	2,622	...	
EAST SALWEEN	West Mèpalè	1881	25,600	25,600	93	25,507	3,126	
	Methawè	1890	7,680	7,680	10	7,670		
ATTARAN	Kyunchaung	1880	7,600	7,600	10	7,590	544	
	Dali	1878	151	300	...	300	140	
	Natchaung	1883	1,800	1,800	1,800	...	90	
	Gôngyi	1889	17	...	...	...	...	
	Thingannyinaung	1890	4	250	...	250	113	
	Total ...	...	83,495	83,898	10,628	73,270	6,512	

ANNUAL FORM NO. 51 [PRESCRIBED].—*Area of Forest Tracts protected from Fire during the dry season of 1890-91*—concluded.

Division.	Forest tract.	Year in which protection commenced.	Area actually protected up to 15th June 1890.	During dry season of 1891. Area attempted to be protected.	Failures.	Actually protected.	Cost during the season.	Remarks.
	PEGU CIRCLE.		Acres.	Acres.	Acres.	Acres.	Rs.	
THAYETMYO ...	Tindaw ...	1890	147	2,880	2,876	4	291	
PROME	Prome plantation ...	1857	.....	75	10	65	18	
	Chaungzauk reserve	1879	6,398	9,408	956	8,452	1,224	
	Bwet ...	1877	7,763	8,416	34	8,382	907	
	Gwedauk kwin ...	1886	2,582	3,973	296	3,677	523	
	Kyaukyidaung	1886	1,301	2,180	1,000	1,180	568	
THARRAWADDY	Nyanlè ...	1877	4,255	4,518	.....	4,518	1,163	
	Lower Payagyi	1868	3,408	3,408	4	3,404	820	
	Bawbin ...	1869	1,497	1,500	530	970	374	
	Gwedauksau	1876	285	285	.....	285	126	
	Kangyi ...	1877	4,903	4,914	108	4,806	984	
	Myodwin	1869	38	60	.....	60	56	
	Myaung	1876	1,666	1,860	.....	1,860	340	
	Minhla	1876	4,123	6,172	1,680	4,492	337	
	Môkka ...	1876	540	598	500	98		
	Môkka ...	1873	10,586	10,591	346	10,245	1,189	
	Kadin-Bilin	1873	7,234	7,326	.....	7,326		
	Kôn-Bilin	1876	1,305	4,381	2,042	2,339	1,286	
	Thônzè ...	1876	2,135	16,841	4,445	12,396		
RANGOON	Magayi plantation	1872	1,722	1,749	137	1,612	2,201	
	Magayi reserve ...	1872	1,645	1,618	137	1,481		
	Kyetpyugan plantation	1868	683	683	.....	683	1,067	
	Kyetpyugan teak yas	1884	115	119	9	110		
	Kyetpyugan reserve	1886	142	138	.....	138		
	Dawè reserve ...	1883	30,425	30,425	18,000	12,425	.....	
	Dawè plantation ...	1883	813	813	502	311	.....	
	Sinzwechaung plantation	1886	162	336	.....	336	.....	
	Tedawchaung reserve	1887	150	9,264	3,210	6,054	.....	
TOUNGOO	Saing Yanè reserve	1877	25,600	33,600	60	33,540	2,075	
	East Swa reserve ...	1883	17,380	17,380	3,044	14,336	696	
	Bôndaung reserve	1884	10,880	10,880	50	10,830	555	
	Kabaung reserve ...	1884	2,557	2,560	50	2,510	62	
	Pyunchaung reserve	1877	3,440	3,440	.....	3,440	298	
SHWEGYIN ...	Kyuntaung reserve	1890	6	6	2	4	15	
	Total ...	.....	155,856	202,297	40,028	162,269	17,165	
	GRAND TOTAL LOWER BURMA ...	.....	239,361	286,195	50,656	235,539	23,677	

ANNUAL FORM NO. 52 [PRESCRIBED]—*Statement showing the Area of Plantations in the Tenasserim Circle for the year 1890-91.*

Division.	Name of plantation.	Area in acres: On 1st April 1890	Area in acres: Added during the year.	Area in acres: Excluded during the year.	Area in acres: Area on 31st March 1891.	Receipts: Of the year.	Charges: Of the year.	Remarks.
	Regular Plantations.					Rs. A. P.	Rs.	
ATTARAN ...	Thinganyinaung	16	...	...	16	...	...	
KADO	Shwegun	5	...	...	5	...	...	On the revision of boundaries during the year these plantations have fallen within the Kado division.
	Kolân island	2	...	...	2	...	...	
	Total ...	7	...	...	7	...	...	
	Total Regular Plantations ...	23	...	...	23	...	...	
	Cultural Operations.							
	Mergui experimental plantation	111	...	...	111	...	1,213	
	Total Cultural Operations ...	111	...	...	111	...	1,213	
	Total Regular Plantations ...	23	...	...	23	...	...	
	Total Cultural Operations ...	111	...	...	111	...	1,213	
	Total Taungya Plantations ...	5,634	1,136	...	6,770	...	12,090	
	GRAND TOTAL ...	5,768	1,136	...	6,904	...	13,303	

ANNUAL FORM NO. 52 (PRESCRIBED).—*Statement showing the Area of Plantations in the Pegu Circle for the year 1890-91.*

Division	Name of plantation.	Area in acres: On 1st April 1890.	Added during the year.	Excluded during the year.	Area on 31st March 1891.	Receipts. Of the year. Rs. A. P.	Charges. Of the year. Rs.	Remarks.
	Regular Plantations.							
PROME	Prome	73	.	...	73	...	.....	
THARRAWADDY	Rawlin	340	.....	.....	340	...	...	
	Kywèinakaing	144			144	.....	60	
	Myodwin	10		.....	10	.....	....	
	Total	494	.....	.	494	.....	60	
RANGOON	Kyetpyugan	801		. ..	801	.....	382	
	Magayi	1,722	17		1,739	.....	1,858	
	Total	2,523	17		2,540	.	2,240	
TOUNGOO	Kanni	65	.....		65	.....	.....	
	Pyunchaung	701			701	.....	.....	
	Yenè	9	...	.. ...	9	.....	.....	
	Total	775	..	. ...	775	.....	...	
ARAKAN	Myauktaing	10	.. ...		10	.....	. ....	
	Total Regular Plantations	3,875	17	... .	3,892		2,300	
	Cultural Operations.							
PROME	Chaungzauk			.....	... .	.....	167	
	Kadinzauk	300	.	.....	300	.....	.....	
	Bwet	600		.....	600	.....	... .	
	Total	900	.	... ..	900	.....	167	
THARRAWADDY	Pazingyè	125	.....	.... .	125	.....	.....	
	Nyaulè	830	....	....	830	.....	.. ...	
	Kangyi	350	.....	.....	350	.....	4	
	Mókka	600	.....	.....	600	.....	.....	
	Bilin	208	.....	.....	208	.....	.....	
	Kôu-Bilin	....	82	.....	82	.....	1,150	
	Total	2,313	82	. ..	2,395		1,154	
	Total Cultural Operations	3,213	82	.....	3,295	...	1,321	
	Total Regular Plantations	3,875	17	.....	3,892	.....	2,300	
	Total Cultural Operations	3,213	82	.....	3,295	.....	1,321	
	Total Taungya Plantations	13,972	1,493	.....	15,465	.....	32,963	
	Total Pegu Circle	21,060	1,592	.....	22,652	.....	36,004	
	ABSTRACT.							
	Lower Burma.							
	Total Regular Plantations	3,898	17	.....	3,915	.....	2,300	
	Total Taungya Plantations	19,606	2,629	.....	22,235	.....	44,473	
	Total Cultural Plantations	3,324	82	.....	3,406	.....	2,534	
	GRAND TOTAL	26,828	2,728	.....	29,556	... ..	49,307	

ANNUAL FORM NO. 52A.—*Statement of Taungya, Teak, Thitka, and Padauk Plantations in the Tenasserim Circle for the year 1890-91.*

Division.	Name of reserve.	Year of formation.	Area on 1st April 1890.	Area planted with teak, &c., during 1890-91.	Cost up to 1889-90. Original cost.	Cost up to 1889-90. Maintenance.	Cost during 1890-91. Original cost.	Cost during 1890-91. Maintenance.	Total cost.	Average cost per acre up to 1890-91.	Area on 31st March 1891	Remarks.
			Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Acres.	
West Salween	Sinzwè	1869-70	1,318	279	5,652	6,402	1,541	799	14,394	9 0 2	1,597	
	Wamu	1877-78	55	...	270	146	...	...	416	7 9 0	55	
	Kahilu	1879-80	242	...	1,140	1,174	...	305	2,619	10 13 2	242	
	Ônkangyi	1877-78	948	100	3,385	1,755	650	429	6,219	5 14 11	1,048	19 acres of old lapsed plantations re-cultivated.
	Bilakatkyi	1877-78	483	152	1,125	897	688	168	2,876	4 8 6	635	
	Minanwè	1877-78	113	...	436	115	...	...	551	4 14 0	113	
	Mewaing	1878-79	903	129	5,090	1,089	1,104	664	7,947	7 11 2	1,032	31 acres of old lapsed plantations re-cultivated.
	Tagèlaung	1889-90	105	163	468	...	763	230	1,461	5 7 3	268	
	Total ...		4,167	823	17,566	11,578	4,746	2,595	36,485	7 5 0	4,990	
Attaran	Dali	1877-78	238	35	1,067	382	170	79	1,718	6 4 8	273	
	Kyunchaung	1881-82	292	37	1,872	609	316	102	2,959	11 0 0	269	
	Pakabo	1883-84	3	...	11	7	..	...	18	6 0 0	3	
	Natchaung	1888-89	56	11	329	...	46	94	469	7 0 0	67	
	Gôngyi	1888-89	34	...	174	43	...	...	217	6 6 1	34	
	Thinganyinaung	1888-89	41	24	409	25	148	126	708	10 14 3	65	
	Total ...		604	107	3,882	1,126	680	401	6,089	8 9 0	711	
East Salween	West Mepalè	1882-83	855	176	4,972	3,010	1,825	1,597	11,404	11 1 0	1,031	
	Methawè	1890-91		30	...	...	246	...	246	8 3 2	30	
	Total ...		855	206	4,972	3,010	2,071	1,597	11,650	10 15 8	1,061	
	Plantations other than Teak.											
West Salween ...	Kahilu	1863-84	6	...	35	14	...	...	49	8 2 8	6	
Attaran ...	Dali	1881-87	2	...	14	...	...	...	14	7 0 0	2	
	Total ...		8	...	49	14	...	...	63	7 14 0	8	
	GRAND TOTAL ...		5,634	1,136	26,469	15,728	7,497	4,593	54,287	8 0 3	6,770	

ANNUAL FORM NO. 52A [PRESCRIBED].—*Statement of Taungya, Teak, Cutch, &c., Plantations in the Pegu Circle for the year 1890-91.*

Division.	Name of forest.	Area in acres. On 1st April 1890.	Added during the year.	Excluded during the year.	Area on 31st March 1891.	Cost up to 1889-90. Original cost.	Maintenance.	Cost during 1890-91. Original cost.	Maintenance.	Total.	Average per acre.
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.
PROME	Chaungzauk	764	162	...	926	5,447	4,009	64	1,149	11,269	12 2 9
	Bwet	841	147	...	988	7,646	1,325	1,072	1,300	11,443	11 9 4
	Shwele Yoma	...	...	...	...	76	...	...	...	76	...
	Padetmyaung	54	...	...	54	375	46	...	...	421	7 12 9
	Kyaukkyidaung	10	...	...	10	84	20	...	...	104	10 6 4
	Total ...	1,669	309	...	1,978	13,728	6,000	1,136	2,449	23,313	11 12 7
THARRAWADDY.	Nyanlè	861	125	...	986	10,256*	3,559*	1,203	1,544	16,562	16 12 9
	Taungnyo Yoma	...	...	...	...	135	59	...	...	194	...
	Thitcho	15	...	...	15	70	...	...	...	70	4 10 8
	Gwedauksan	61	...	...	61	899	544	...	93	1,536	18 15 5
	Bawbin-Kyaukpyu		...	...	...	118	10	...	...	128	...
	Bawbin-Chaunggwa	523	150	...	673	6,029*	2,394*	1,521	837	10,781	16 0 4
	Lower Payagyi	259	118	...	377	3,355*	476*	1,093	524	5,450	14 7 4
	Kangyi	334	...	...	334	3,083	2,327	...	419	5,829	17 7 3
	Myodwin	6	3	...	9	66*	20*	29	20	137	15 3 7
	Myaung	349	...	...	349	4,497*	2,125*	...	736	7,361	21 1 6
	Minhla	1,863	166	...	2,029	21,733*	6,219*	1,069	3,827	32,848	16 3 2
	Mókka	2,974	84	...	3,058	30,285*	16,397*	798	2,163	49,633	16 3 8
	Kadin-Bilin	985	29	...	1,014	11,551*	5,456*	287	1,162	18,455	18 3 2
	Kôn-Bilin	333		...	333	3,001*	2,907*	...	393	6,301	18 14 9
	Thônzè	646	119	...	765	6,919*	3,211*	1,117	783	12,030	15 11 7
	Teak seed	...	...	...	...	...	...	920	...	920	...
	Tota ...	9,239	794	...	10,023	1,01,999	45,608	8,127	12,501	1,68,235	16 12 8
BANGOON	Zamayi	858	215	...	1,073	9,564	676	2,068	1,353	13,662	12 12 0
	Teak seed	...	...	...	...	...	...	711	...	711	...
	Total ...	858	215	...	1,073	9,564	676	2,779	1,353	14,392	...

* Revised figures.

ANNUAL FORM NO. 52A [PRESCRIBED].—*Statement of Taungya, Teak, Cutch, &c., Plantations in the Pegu Circle for the year 1890-91*—concluded.

Division.	Name of forest.	Area in acres. On 1st April 1890.	Area in acres. Added during the year.	Area in acres. Excluded during the year.	Area in acres. Area on 31st March 1891.	Cost up to 1889-90. Original cost.	Cost up to 1889-90. Maintenance.	Cost during 1890-91. Original cost.	Cost during 1890-91. Maintenance.	Total.	Average per acre.
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.
TOUNGOO	Yanè	133	48	...	181	1,376	516	672	282	2,846	15 11 7
	Myohla	10	...	...	10	55	...	...	45	100	10 0 0
	East Swa	177	...	...	177	1,536	1,035	...	110	2,681	15 2 4
	Bondaung	24	...	...	24	189	130	...	36	355	14 12 8
	Kabaung	206	...	...	206	1,838	265	...	326	2,429	11 12 7
	Pyunchaung	9	...	...	9	426	79	...	66	571	63 7 1
	Plantation boards	...	...	...	...	180	41	...	...	221	.....
	Total	559	48	...	607	5,600	2,066	672	865	9,203	15 2 7
SHWEGYIN	Kyundaung	...	...	...	...	150	...	...	15	165	.....
	TOTAL TEAK TAUNGYAS	12,315	1,366	...	13,681	1,31,061	54,440	12,714	17,183	2,15,398	15 12 0
THAYETMYO	Satauwa	2	...	...	2	31	4	...	...	35	17 8 0
PROME	Chaungzauk	38	...	...	38	350	317	...	...	667	17 8 10
THARRAWADDY	Kangyi	...	13	...	13	...	...	154	2	156	12 0 0
TOUNGOO	Pyunchaung	2	...	...	2	29	...	...	27	56	28 0 0
	TOTAL CUTCH TAUNGYAS	42	13	...	55	410	321	154	29	914	16 10 0
THAYETMYO	Tindaw	197	19	...	216	1,897*	92	204	401	2,594	12 0 0
	East Yoma	...	95	...	95	...	...	735	...	735	7 11 9
	Total	197	114	...	311	1,897	92	939	401	3,329	10 11 3
PROME	Chaungzauk	590	...	...	590	3,839	4,597	...	...	8,436	14 4 9
	Kyaukgyidaung	328	...	...	328	2,620	1,770	...	514	4,904	14 15 2
	Padetmyaung	471	...	...	471	3,848	2,753	...	449	7,050	14 15 0
	Bwet	11	...	...	11	108	...	...	...	108	9 13 1
	Total	1,400	...	...	1,400	10,415	9,120	...	963	20,498	14 10 3
THARRAWADDY.	Pazingyi	12	...	...	12	108	49	...	...	157	13 1 4
	Kangyi	6	...	...	6	57	21	...	...	78	13 0 0
	Total	18	...	...	18	165	70	...	...	235	13 0 11
TOUNGOO	Saing-Yanè	...	...	...	...	73	21	...	...	94	.....
	TOTAL TEAK AND CUTCH TAUNGYAS	1,615	114	...	1,729	12,550	9,303	939	1,364	24,156	13 15 6
	GRAND TOTAL PEGU	13,972	1,493	...	15,465	1,44,021	64,064	13,807	18,576	2,40,468	15 8 9

* Rs. 24 omitted in 1888-89.

ANNUAL FORM NO. 54.—*Statement of Outturn (in cubic feet solid) of Timber and Fuel in the Tenasserim Circle for the year 1890-91 and Agency of Exploitation.*

Division.	Timber in the bough logs.					Timber in the bough poles.					Sawn or squared timber					Miscellaneous.					Fuel.					Total.
	Government agency.	Purchasers.	Free grantees.	Right-holders	Total.	Government agency.	Purchasers.	Free grantees.	Right-holders.	Total.	Government agency.	Purchasers.	Free grantees.	Right-holders.	Total	Government agency.	Purchasers.	Free grantees.	Right-holders.	Total	Government agency.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft	C. ft.	C. ft.	C. ft.	C. ft.
I.—RESERVED FORESTS.																										
Attaran	9,594	...	...	18,900	28,494	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28,494
East Salween	279,792	...	...	...	279,792	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	279,792
West Salween	52,426	...	...	...	52,426	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	52,426
South Tenasserim	3,816	11,080	...	...	14,896	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14,896
Total ...	345,628	11,080	...	18,900	375,608	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	375,608
II.—PROTECTED FORESTS.																										
Nil.																										
III.—UNRESERVED FORESTS.																										
Attaran	54,160	199,729	2,490	68,967	325,346	...	510	...	...	510	12,222	...	...	...	12,222	...	...	...	...	...	...	...	...	...	...	338,078
East Salween	235,545	125,185	1,440	...	362,170	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	362,170
West Salween	43,088	59,689	270	...	103,047	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	103,047
Kado	47,350	162,840	...	...	210,190	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	210,190
South Tenasserim	14,519	556,707	1,350	...	572,576	...	4,900	...	...	4,900	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	577,476
Total ...	394,662	1,104,150	5,550	66,967	1,573,329	...	5,410	...	...	5,410	12,222	...	...	...	12,222	...	...	...	...	...	...	...	...	...	...	1,590,961
GRAND TOTAL ...	740,290	1,115,230	5,550	87,867	1,948,937	...	5,410	...	...	5,410	12,222	...	...	...	12,222	...	...	...	...	...	...	...	...	...	...	1,966,569

ANNUAL FORM NO. 54.—*Statement of Outturn (in cubic feet solid) of Timber and Fuel in the Pegu Circle for the year 1890-91 and Agency of Exploitation.*

Division.	Description of material.	Timber in the rough logs.					Timber in the rough poles.					Sawn or squared timber					Miscellaneous.					Fuel.					Total.
		Government.	Purchasers	Free grantees	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government	Purchasers.	Free grantees.	Right-holders	Total.	Outturn
	I—Reserved Forests.	C. ft.	C. ft.	C. ft.	C.ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C ft	C.ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C.ft	C.ft	C. ft.	C.ft	C.ft	C. ft.	C. ft.
Prome	Teak	...	2,250	...	...	2,250	55	...	...	...	55	...	...	...	...		...	...	..	...	...	...	...	...	...	...	2,305
	Unreserved woods ...	...	93,893	...	...	93,893	...	...	...	...	...	...	...	...	...	.	...	...	...	..	...	...	...	...	...	...	93,893
Thabra-waddy	Teak	463,228	...	...	...	463,228	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	463,228
	Reserved woods	...	1,527	...	...	1,527	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,527
	Unreserved woods ...	...	30,908	...	...	30,908	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80,557	...	...	80,557	111,465
Rangoon	Teak	253,122	...	...	...	253,122	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	253,122
	Reserved woods	...	2,500	...	...	2,500	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	2,500
	Unreserved woods ...	...	318,170	...	...	318,170	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	175,380	...	...	175,880	493,550
Toungoo ...	Teak	...	73,902	...	...	73,902	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	73,902
	Total ...	716,350	523,150	...	...	1,239,500	55	...	...	...	55	...	...	...	...	...	...	...	...	...	...	255,937	...	...	255,937	1,495,492
	II.—Protected Forests. *Nil.*																										
	III.—Unreserved Forests.																										
Thayet-myo	Teak	50,966	9,496	...	...	60,462	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	60,462
	Unreserved woods ...	...	628,070	...	...	628,670	...	13,150	...	...	13,150	...	...	...	...	...	...	...	...	...	...	68,100	...	...	68,100	709,920
Prome	Teak	155,259	4,350	1,400	...	161,009	...	..	..	...	...	...	...	...	...	...	...	...	..	...	...	..	...	..	..	...	161,009
	Unreserved woods .	...	184,294	...	...	184,294	..	350		...	350	...	32,288	...	...	32,288	...	...	...	...	..	169,920	.	...	169,920	386,852
Thabra-waddy	Teak	203,029	19,133	1,200	...	223,362	...	...	...		...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	223,362
	Reserved woods	...	11,200	...	...	11,200	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	..	...	11,200
	Unreserved woods ...	...	297,955	...	...	297,955	...	200	...	...	200	...	3,210	...	...	3,210	...	...	...	...	...	139,250	...	...	139,250	440,615

RANGOON	Teak	...	729	300	...	1,029	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,029
	Reserved woods	5,640	6,155	...	..	11,795	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11,795
	Unreserved woods ...	2,500	276,600	...	...	279,100	...	150	...	...	150	...	...	...	...	...	...	...	...	...	...	172,400	...	...	172,400	451,650
TOUNGOO	Teak	243,467	884,438	3,350	...	1,131,275	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,131,275
	Reserved woods	3,378	46,903	500	...	50,781	...	...	...	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	50,781
	Unreserved woods ...	...	390,075	...	...	390,075	...	12,175	..	...	12,175	..	...	...	...	...	...	...	..	...	...	97,600	..	...	99,600	489,850
SHWEGYIN	Teak	...	60,896	250	...	61,146	...	...	...	...	..	...	...	...	...	...	..	...	...	...	...	...	...	...	.	61,146
	Reserved woods	...	121,078	1,600	...	122,678	...	...	...	...	..	...	...	...	...	..	...	..	...	...	...	...	...	...	...	122,678
	Unreserved woods ...	...	362,043	760	...	362,803	...	175	...	...	175	...	...	...	...	..	...	...	...	...	...	100,600	...	...	100,600	463,578
WESTERN	Teak	1,408	6,060	600	...	8,068	...	...	..	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	8,068
	Reserved woods	...	20,058	4,100	...	24,158	...	...	...	...	...	...	...	...	...	..	...	..	...	...	...	...	...	...	...	24,158
	Unreserved woods ...	...	1,462,700	...	...	1,462,700	...	179,181	...	...	179,181	...	...	...	...	...	...	...	...	...	...	101,400	...	...	101,400	1,743,281
AGENCY ..	Unreserved woods ..	...	...	...	...	...	...	2,067	.	...	2,067	...	...	...	...	..	...	...	...	..	...	...	2,976,993	...	...	2,976,993	2,979,060
	Total ...	665,667	4,792,833	14,060	...	5,472,560	...	207,448	..	...	207,448	...	35,498	...	...	35,498	...	...	..	...	...	...	3,826,263	...	...	3,826,263	9,541,769
	TOTAL RESERVED FORESTS.																										
	Teak	716,350	76,152	...	...	792,502	55	...	...	...	55	...	..	...	...	...	..	...	...	...	...	...	...	...	...	...	792,557
	Reserved woods	...	4,027	..	...	4,027	...	...	...	...	...	...	..	...	...	...	.	...	...	...	...	...	...	...	...	4,027
	Unreserved woods ...	...	442,971	...	...	442,971	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	255,937	...	..	255,937	698,908
	Total ...	716,350	523,150	.	...	1,239,500	55	..	.	...	55	...	...	...	...	...	...	...	...	...	...	255,937	...	...	255,937	1,495,492
	TOTAL UNRESERVED FORESTS.																										
	Teak	654,149	985,102	7,100	...	1,646,351	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,646,351
	Reserved woods	9,018	205,394	6,200	..	220,612	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	220,612
	Unreserved woods ...	2,500	3,602,337	760	...	3,605,597	...	207,448	...	...	207,448	...	35,498	...	...	35,498	...	...	...	...	...	3,826,263	...	...	3,826,263	7,674,806
	Total ...	665,667	4,792,833	14,060	...	5,472,560	...	207,448	...	...	207,448	...	35,498	...	...	35,498	...	...	..	...	...	3,826,263	...	...	3,826,263	9,541,769
	GRAND TOTAL.																										
	Teak	1,370,499	1,061,254	7,100	...	2,438,853	55	...	...	...	55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,438,908
	Reserved woods	9,018	209,421	6,200	...	224,639	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	224,639
	Unreserved woods ...	2,500	4,045,308	760	...	4,048,568	...	207,448	...	...	207,448	...	35,498	...	...	35,498	...	...	...		..	...	4,082,200	...	...	4,082,200	8,373,714
	Total ...	1,382,017	5,315,983	14,060	...	6,719,060	55	207,448	...	...	207,503	.	35,498	...	..	35,498	...	...	...	...	...	...	4,082,200	..	...	4,082,200	11,037,261

ANNUAL FORM NO. 55 [PRESCRIBED].—*Statement showing Outturn of Minor Forest Produce in the Tenasserim Circle for the year 1890-91.*

Division	Description of produce.	Produce removed or utilized.										Remarks.
		By Government agency.		*By purchasers*		*By free grants.*		*By right-holders.*		*Total.*		
		Quantity.	Value	Quantity.	Value	Quantity.	Value	Quantity.	Value	Quantity.	Value	
			Rs.		Rs.		Rs.		Rs.		Rs.	
	I.—RESERVED FORESTS.											
SOUTH TENASSERIM.	Bamboos	...	...	20,210	50	...	...	...	...	20,210	50	
	Canes	...	...	1,70,000	60	...	...	...	...	1,70,000	60	
	Total ...	...	...	1,90,210	110	...	...	...	...	1,90,210	110	
	II.—PROTECTED FORESTS.											
	Nil.											
	III.—UNRESERVED FORESTS.											
ATTARAN ...	Kanyin-oil	...	...	...	192	...	...	...	...	...	192	
EAST SALWEEN	Kanyin-oil	...	...	...	10	...	...	...	...	...	10	
KADO ...	Kanyin-oil	...	...	...	34	...	...	...	...	...	34	
SOUTH TENASSERIM.	Kanyin-oil	...	...	...	1,848	...	...	...	...	...	1,848	
	Total ...	...	...	...	2,084	...	...	...	...	...	2,084	
	GRAND TOTAL ...	...	...	...	2,194	...	...	...	...	...	2,194	

FORM NO. 55 [PRESCRIBED].—*Statement showing the Outturn of Minor Forest Produce in the Pegu Circle for the year 1890-91*—continued.

Division.	Description of produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
	SERVED FORESTS											
Thayetmyo	Bamboos	...	...	11,700	29	...	...	...	...	11,700	29	
Prome		...	...	22,100	55	...	...	...	...	22,100	55	
Tharrawaddy		...	...	1,170,170	2,930	...	...	27,250	68	1,197,420	2,998	
Rangoon		...	...	942,400	2,357	...	...	...	...	942,400	2,357	
Toungoo		...	...	37,975	95	...	...	4,700	12	42,675	107	
Shwegyin		...	...	9,050	23	...	...	...	...	9,050	23	
	Total II (c) ...	...	...	2,193,395	5,489	...	...	31,950	80	2,225,345	5,569	
Tharrawaddy	Grazing ... Head of cattle	...	...	203	91	...	...	334	143	537	234	
Rangoon		...	...	543	161	...	...	...	...	543	161	
Toungoo		...	...	...	...	...	...	59	19	59	19	
	Total II (d) ...	...	...	746	252	...	...	393	162	1,139	414	
Tharrawaddy	Cutch ... ... Viss	...	...	506,250	28,635	...	...	...	...	506,250	28,635	
Rangoon	Canes	...	...	250	20	...	...	...	...	250	20	
Toungoo	Canes	...	—	890	89	...	...	...	...	890	89	
	Total ...	...	—	1,140	109	...	...	...	...	1,140	109	
Thayetmyo	Shaw fibre ... ... Viss	...	...	500	5	...	...	...	...	500	5	
Prome		...	...	20,057	201	...	...	...	...	20,057	201	
Tharrawaddy		...	...	1,410	141	...	...	...	...	1,410	141	
Rangoon		...	—	12,200	244	...	...	...	...	12,200	244	
Toungoo		...	—	2,500	25	...	...	...	...	2,500	25	
Shwegyin		...	...	16,300	163	...	...	...	...	16,300	163	
	Total ...	...	...	53,967	779	...	...	...	...	53,967	779	
	Total cutch canes and shaw fibre carried over.	...	...	...	29,523	...	...	...	...	...	29,523	
	Total II (c) and II (d) carried over ...	...	...	...	5,741	...	...	...	242	...	5,983	

FORM NO. 55 [PRESCRIBED].—*Statement showing the Outturn of Minor Forest Produce in the Pegu Circle for the year 1889-91*—concluded.

Division.	Description of produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
	Total II(*c*) and II(*d*) brought forward.	...	...	...	5,741	...	...	...	243	...	5,983	
	Total cutch, canes, and shaw fibre brought forward.	...	...	...	29,523	...	...	...	242	...	29,523	
	II.—RESERVED FORESTS—*concld.*											
Prome	Thatch ... ... Bundles	...	...	700	3	...	...	...	...	700	3	
Tharrawaddy		...	...	1,400	28	...	...	...	...	1,400	28	
Rangoon		...	...	1,200	40	...	...	...	...	1,200	40	
Toungoo		...	...	300	2	...	...	450	1	750	3	
	Total ...	...	...	3,600	73	...	...	450	1	4,050	74	
Prome	Cigar wrappers ... Viss	...	...	200	2	...	...	...	...	200	2	
Tharrawaddy		...	...	1,010	101	...	...	...	...	1,010	101	
	Total ...	...	...	1,210	103	...	...	...	...	1,210	103	
Prome	Wood-oil ... ... Viss	...	...	1200.	24	...	...	...	...	1,200	24	
Tharrawaddy		...	...	1,625	65	...	...	...	...	1,625	65	
	Total ...	...	...	2,825	89	...	...	...	...	2,825	89	
Thayetmyo	Betel leaves ... ... Viss	...	...	1,350	14	...	...	...	...	1,350	14	
Rangoon		...	...	7,150	80	...	...	...	...	7,150	80	
	Total ...	...	...	8,500	94	...	...	...	...	8,500	94	
Thayetmyo	Fishing ... Licenses	...	...	51	510	...	...	...	...	51	510	
Tharrawaddy		...	...	1	10	...	...	...	...	1	10	
Rangoon		...	...	3	30	...	...	...	...	3	30	
Shwegyin		...	...	2	20	...	...	...	...	2	20	
	Total ...	...	...	57	570	...	...	...	...	57	570	
Tharrawaddy	Honey ... ... Licenses,	...	...	1	5	...	...	...	...	1	5	
Rangoon	Thin ... ... Carts.	...	...	9	36	...	...	...	...	9	36	
Rangoon	Laterite ... Cubic feet.	...	...	13,000	13	...	...	...	...	13,000	13	
	Total ...	...	...	...	30,506	...	...	...	1	...	30,507	
	Total of II(*c*) and II(*d*) ...	...	...	...	5,741	...	...	...	242	...	5,983	
	Total reserves ...	...	...	...	36,247	...	...	...	243	...	36,490	

	Unreserved Forests.										
Thayetmyo	Cutch	Viss	...	...	647,500	25,930	...	...	...	...	647,500	25,930
Prome			...	...	233,000	4,660	...	...	...	...	233,000	4,660
Tharrawaddy			...	...	48,300	2,760	...	...	...	...	48,300	2,760
Toungoo			...	...	15,000	600	...	...	...	...	15,000	600
Shwegyin			...	...	35,000	140	...	...	...	...	35,000	140
Western			...	...	78,600	2,620	...	...	...	...	78,600	2,620
	Total ...		...	...	1,057,400	36,710	...	...	...	...	1,057,400	36,710
Thayetmyo	Resin	Viss	...	...	2,000	40	...	...	...	...	2,000	40
Toungoo	Thitsi	"	...	...	6,440	322	...	...	...	...	6,440	322
Shwegyin			...	...	2,920	146	...	...	...	...	2,920	146
	Total ...		...	...	9,360	468	...	...	...	...	9,360	468
Toungoo	Pwenyet	Viss	...	...	40	4	...	...	...	...	40	4
Prome	Wood-oil		...	...	20,100	134	...	...	...	...	20,100	134
Tharrawaddy			...	...	6,875	110	...	...	...	...	6,875	110
Rangoon			...	...	2,600	52	...	...	...	...	2,600	52
Toungoo			...	...	4,180	418	...	...	...	...	4,180	418
Shwegyin			...	...	5,700	114	...	...	...	...	5,700	114
Western			...	...	48	12	...	...	...	...	48	12
			...	...	39,503	840	...	...	...	...	39,503	840
	Total unreserved forests ...		...	...	...	38,052	...	...	...	...	...	38,052
	Grand Total ...		...	...	...	74,300	...	...	...	243	...	74,552
	Summary of II (e) Revenue.											
	Cutch		...	...	1,563,650	65,345	...	...	...	...	...	...
	Canes		...	...	1,140	109	...	...	...	...	...	...
	Shaw		...	...	52,957	779	...	...	...	...	...	...
	Thatch		...	...	3,640	73	...	...	...	...	...	...
	Cigar wrappers		...	...	1,210	103	...	...	...	...	...	...
	Wood-oil		...	...	42,328	929	...	...	...	...	...	...
	Resin		...	...	2,000	40	...	...	...	...	...	...
	Thitsi		...	...	9,360	468	...	...	...	...	...	...
	Pwenyet		...	...	40	4	...	...	...	...	...	...
	Betel-leaves		...	...	8,500	94	...	...	...	...	...	...
	Fishing	Licenses	...	...	57	570	...	...	...	...	...	...
	Honey	"	...	...	1	5	...	...	...	...	...	...
	Thin		...	...	9	36	...	...	...	...	...	...
	Laterite		...	...	13,000	13	...	...	...	...	...	...
	Total of 1890-91 ...		...	...	...	68,568	...	...	...	...	...	...
	Add outstandings of 1889-90 ...		...	...	...	4,205	...	...	...	...	...	...
			...	...	...	72,773	...	...	...	...	...	...
	Deduct outstandings on 31st March 1891.		...	...	...	360	...	...	...	...	...	...
	Actuals ...		...	...	...	72,413	...	...	...	...	...	...

ANNUAL FORM NO. 56 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally in the Tenasserim and Pegu Circles for the year 1890-91.*

Particulars.	Number or quantity.	Cubic feet	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE.				
TIMBER.				
Opening Balance.				
Attaran division.				
Padauk logs ...	102	3,811		
Ingyin logs ...	3	48		
Pyinma logs ...	349	19,470		
Thitya logs ...	7	268		
Thingan logs ...	76	3,283		
Thitya sleepers ...	8	27		
Pyinma sleepers ...	51	81		
Pyinkado sleepers ...	6,139	9,241		
Padauk planks ...	1	52		
Pyinma scantlings ...	7	302		
Teak scantlings ...	3	178		
Pyinkado scantlings	192	9,599		
			6,938	46,420
East Salween division.				
Teak logs ...	84	2,315		
Padauk logs ...	105	3,173		
Pyinma logs ...	83	4,249		
Pyinkado posts ...	7	81		
Thingan hulls ...	3	266		
			282	10,084
West Salween division.				
Teak logs and pieces	117	1,784		
Pyinkado sleepers, large.	140	485		
Pyinkado sleepers, small.	238	275		
			495	2,544
Kado division.				
Drift teak	5,085	173,327		
Drift woods other than teak.	46	2,100		
Foreign teak ...	124,428	5,524,780		
Foreign woods, other kinds.	75	2,955		
			129,634	5,703,162
South Tenasserim division.				
Thitka logs ...	7	450		
Anan logs ...	6	177		
Kamaung logs ...	36	1,700		
Thingan logs ...	21	903		
Padauk logs ...	37	3,345		
Pyinkado logs ...	1	59		
Drift logs other than teak.	19	938		
Confiscated other than teak.	11	646		
Pyinkado sleepers, narrow gauge.	3,000	4,500		
			3,138	12,808
Total opening balance ...	...	...	140,487	5,775,018
Received from the Forests in Depôts.				
Teak logs, pieces, and crooks	24,205	555,633		
Padauk logs ...	9	421		
Pyinma logs ...	2,702	150,318		
Thitka logs ...	56	3,940		
Ingyin logs ...	60	1,954		
Pyinkado logs ...	414	18,649		
Other unreserved logs ...	5	251		
Drift teak logs ...	6,080	139,724		
Drift woods, other kinds, logs.	64	3,146		
Waif woods, other kinds, logs.	13	1,212		
Confiscated logs ...	76	4,129		
Confiscated scantlings ...	1	50		
Carried over ...	...	...	33,685	888,496
Carried over ...	...	...	140,487	5,775,018

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE.				
TIMBER.				
Removed by Purchasers from Depôts.				
Teak logs ...	24,165	556,438		
Padauk logs ...	97	4,398		
Pyinma logs ...	2,538	151,051		
Thitka logs ...	55	3,804		
Pyinkado logs ...	10	617		
Other unreserved logs ...	4	195		
Drift teak logs ...	3,877	108,374		
Drift woods, other kinds, logs.	90	4,316		
Confiscated woods, other kinds.	76	3,992		
Waif woods, other kinds ...	12	1,190		
Pyinkado sleepers ...	7,823	11,734		
Pyinma sleepers ...	1,310	4,452		
Pyinkado scantlings ...	78	3,929		
Pyinma scantlings ...	111	5,558		
			40,216	800,147
Sold locally.				
Kabon logs ...	1	55		
			1	55
Converted in Depôts.				
Teak logs ...	7	258		
Pyinma logs ...	302	17,946		
Pyinkado logs ...	20	491		
			329	18,695
Used, lost, drifted, &c.				
Teak logs ...	1	11		
Teak scantlings ...	3	182		
Pyinma scantlings ...	2	84		
			6	277
Delivered to Claimants.				
Drift teak logs ...	4,255	91,600		
Drift woods, other kinds, logs.	2	50		
			4,257	91,650
Logs cleared from Depôts on payment of duty.				
Foreign teak logs ...	110,143	4846,292		
Foreign woods, other kinds, logs.	3	120		
			110,146	4,846,412
Total disposals ...	...	...	154,985	5,817,236
Closing Balance.				
Attaran division.				
Padauk logs ...	70	2,012		
Ingyin logs ...	3	48		
Pyinma logs ...	121	4,425		
Thitka logs ...	1	55		
Thitya logs ...	7	268		
Thingan logs ...	76	3,283		
Pyinma sleepers ...	108	375		
Pyinkado sleepers ...	1,011	1,549		
Thitya sleepers ...	8	27		
Teak scantlings, tons	3	178		
Pyinma scantlings, tons.	18	931		
Pyinkado scantlings, tons.	129	6,442		
Padauk planks, tons...	1	52		
			1,556	19,645
East Salween.				
Teak logs, pieces, and crooks.	175	1,942		
Padauk logs ...	48	960		
Ingyin logs ...	60	1,954		
Pyinma logs ...	66	4,629		
Pyinkado posts ...	7	81		
Thingan hulls ...	3	266		
			359	9,832
Carried over ...	...	...	1,915	29,477
Carried over ...	...	...	154,985	5,817,236

ANNUAL FORM NO. 56 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c.*—continued.

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE.—concluded.				
Brought forward ...	...	...	140,487	5,775,018
Receipts brought forward...	...	...	33,085	888,496
Received from the Forests and sold locally.				
Kabon logs ...	1	55		
			1	55
Received by conversion in Depots.				
Teak scantlings, tons ...	3	182		
Pyinma scantlings, tons ...	124	6,211		
Pyinkado scantlings, tons ...	15	772		
Pyinkado sleepers ...	208	311		
Pyinma sleepers ...	1,367	4,746		
			1,717	12,222
Foreign timber entered at Kado Revenue Station.				
Teak logs	110,322	5,118,168		
Woods other than teak ...	12	480		
			110,334	5,118,648
Total Receipts ...	...	...	151,737	6,019,421
GRAND TOTAL ...	...	...	292,224	11,794,439

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
TENASSERIM CIRCLE.—concluded.				
Brought forward ...	...	...	154,086	5,817,236
Closing balance—concluded.	...	...	1,915	29,477
West Salween. Teak logs, pieces, and crooks.	58	1,143		
Pyinma logs ...	51	2,850		
Pyinkado sleepers, large.	140	485		
Pyinkado sleepers, small.	238	275		
			487	4,753
Kado division. Drift teak logs ...	3,033	118,077		
Drift woods, other kinds, logs.	10	500		
Scantlings, tons ...	1	50		
Pyinma logs ...	56	2,136		
Foreign teak logs ...	130,607	5,706,656		
Foreign woods, other kinds.	84	2,315		
			133,791	5,015,734
South Tenasserim division. Thitka logs ...	7	450		
Anan logs ...	6	177		
Kamaung logs ...	36	1,700		
Thingan logs ...	21	903		
Padauk logs ...	38	3,380		
Pyinkado logs ...	385	17,000		
Other unreserved woods.	1	56		
Confiscated logs ...	12	783		
Drift logs, other kinds	26	1,318		
Waif logs, other kinds	1	13		
Pyinkado sleepers ...	513	769		
			1,046	27,299
Total closing balance ...	...	...	137,290	5,077,203
GRAND TOTAL ...	...	...	292,224	11,794,439

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE.				
OPENING BALANCE.				
Teak logs.				
Thayetmyo ...	43	1,540		
Prome	54	2,592		
Shwegyin	80	3,300		
Western	15	303		
Agency	26,333	1,304,228		
			26,525	1,311,963
Teak sleepers.				
Agency	...	...	42	63
Paddy-field teak logs.				
Tharrawaddy ...	...	...	15,002	296,438
Logs other than teak.				
Shwegyin	88	3,400		
Agency	1	85		
			89	3,485
Drift teak logs.				
Thayetmyo ...	100	4,292		
Prome	69	1,918		
Toungoo	156	7,488		
Shwegyin	185	9,250		
Western	210	12,120		
Agency	270	11,518		
			990	46,586
Carried over ...	...	...	43,348	1,658,535

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE.				
Transferred to Depôt, Rangoon.				
Teak logs	26,968	1,272,410		
Logs other than teak ...	180	8,968		
Drift teak logs ...	1,397	51,143		
Drift logs other than teak	5	102		
			28,550	1,332,683
From Tharrawaddy to Prome.				
Paddy-field teak logs ...	...	...	88	1,672
Total transfers ...	...	...	28,638	1,334,355
Returned to Contractors.				
Teak logs	...	...	420	8,235
Returned to Claimants.				
Teak logs	10,840	450,490		
Logs other than teak ...	35	1,580		
			10,875	452,070
Used, lost, stolen, &c.				
Teak logs ...	6	209		
Logs other than teak ...	1	50		
Paddy-field teak logs ...	1	19		
Drift teak logs	106	5,312		
			114	5,590
Disposals carried over...	...	...	11,409	465,901
Total transfers carried over	...	...	28,638	1,334,355

ANNUAL FORM NO. 56 [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency, &c*—concluded.

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE—concluded.				
Brought forward ...	...	...	43,248	1,658,535
Drift logs other than teak.				
Shwegyin ...	8	900		
Agency	3	112		
			21	1,012
Total opening balance.	...	...	43,269	1,659,547
Received from Forests.				
Teak logs	28,655	1,321,688		
Teak logs from paddy-fields	2,569	48,811		
Teak logs, poles ...	447	55		
Logs other than teak ...	231	11,518		
			31,902	1,382,072
Drift collected.				
Teak logs	13,552	555,004		
Logs other than teak ...	235	9,452		
			13,787	564,456
Total receipts ...	...	...	45,689	1,946,528
In transit.				
Drift teak logs ...	...	...		
			126	9,200
Received into Rangoon Depôt.				
Teak logs	26,968	1,272,410		
Logs other than teak ...	180	8,968		
Drift teak logs ...	1,271	41,943		
Drift logs other than teak...	5	162		
			28,424	1,323,483
Transferred to Prome Depôt.				
Paddy-field teak logs ...	...	...	88	1,072
Total transfers ...	...	...	28,638	1,334,355
GRAND TOTAL ...	...	...	117,596	4,940,430

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
PEGU CIRCLE—concluded.				
Total transfers brought forward.	...	...	28,638	1,334,355
Disposals brought forward	...	...	11,409	465,901
Sold locally.				
Teak logs	1,108	39,593		
Teak logs from paddy-fields	15,442	293,398		
Teak logs, poles ...	447	55		
Logs other than teak ...	50	2,500		
Drift teak logs ...	1,112	48,045		
Drift logs other than teak.	209	8,450		
			18,368	392,041
From Rangoon Depôt, returned to Claimants.				
Teak logs	...	...	1,220	41,286
Sold.				
Teak logs	30,652	1,490,675		
Teak logs other than teak	126	6,701		
Drift teak logs ...	207	5,928		
Drift logs other than teak	8	274		
			30,993	1,503,578
Total disposals ...	...	...	61,990	2,402,806
CLOSING BALANCE.				
Teak logs.				
Thayetmyo	191	2,716		
Prome	74	2,900		
Shwegyin	80	3,300		
Agency	22,649	1,085,903		
			22,994	1,094,939
Teak sleepers.				
Agency	...	...	42	63
Paddy-field teak logs.				
Prome	303	5,757		
Tharrawaddy ...	2,425	46,075		
			2,728	51,832
Logs other than teak.				
Shwegyin	88	3,400		
Agency	55	2,352		
			143	5,752
Drift teak logs.				
Thayetmyo	236	11,800		
Prome	98	2,940		
Toungoo	155	4,650		
Shwegyin	193	9,520		
Western	135	6,166		
Agency	114	6,247		
In transit	126	9,200		
			1,057	50,523
Drift logs other than teak.				
Shwegyin	...	...	4	160
Total closing balance ...	...	...	26,968	1,203,269
GRAND TOTAL ...	...	...	117,596	4,940,430

ANNUAL FORM NO. 56A [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts and sold locally for the year 1890-91.*

Particulars.	Tenasserim circle.		Pegu circle.		Total of each head.	
	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet	Number or quantity.	Cubic feet.
Opening balance ...	140,487	5,775,018	43,269	1,659,547	183,756	7,434,565
Received from Forests in Depôts.						
Teak logs, pieces, and crooks	24,205	555,693	26,968	1,273,410	51,173	1,828,103
Padauk logs	9	421	...	...	9	421
Thitka logs	56	3,949	...	...	56	3,949
Pyinma logs	2,702	159,318	...	...	2,702	159,318
Ingyin logs	60	1,954	.	...	60	1,954
Paddy-field teak logs	...	...	88	1,672	68	1,672
Pyinkado logs	414	18,649	...	...	414	18,649
Unreserved woods, logs	5	251	180	8,968	185	9,219
Drift teak logs	6,080	139,724	1,271	41,943	7,351	181,667
Drift logs other than teak	64	3,146	5	162	69	3,308
Waif logs other than teak	13	1,212	...	...	13	1,212
Confiscated logs	76	4,129	...	...	76	4,129
Confiscated scantlings	1	50	...	...	1	50
Total ...	33,655	888,496	28,512	1,325,155	62,197	2,213,651
Received from Forests by Extraction.						
Teak logs	...	...	28,655	1,321,688	28,655	1,321,688
Paddy-field teak logs	...	...	2,569	48,611	2,569	48,611
Teak poles	...	...	447	55	447	55
Logs other than teak	...	...	231	11,518	231	11,518
Total ...	...	...	31,902	1,382,072	31,902	1,382,072
Received from Forests and disposed of locally.						
Logs other than teak	1	55	...	...	1	55
Total ...	1	55	...	...	1	55
Carried over ...	174,173	6,663,569	103,683	4,366,774	277,856	11,030,343

Particulars.	Tenasserim circle.		Pegu circle.		Total of each head.	
	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
Removed by purchasers from Depôts.						
Teak logs, pieces, and crooks	24,165	556,438	30,652	1,490,675	54,817	2,047,113
Padauk logs	97	4,398	...	...	97	4,398
Pyinkado logs	10	617	...	...	10	617
Thitka logs	55	3,894	...	...	55	3,894
Pyinma logs	2,538	151,051	...	...	2,538	151,051
Woods other than teak	4	195	126	6,701	130	6,896
Drift teak logs	3,877	108,374	207	5,925	4,084	114,299
Drift woods other than teak	90	4,316	8	274	98	4,590
Confiscated other than teak	76	3,992	...	...	76	3,992
Waif woods other than teak	12	1,199	...	...	12	1,199
Pyinkado sleepers	7,823	11,734	...	...	7,823	11,734
Pyinma sleepers	1,310	4,452	...	...	1,310	4,452
Pyinkado scantlings	78	3,929	..	...	78	3,929
Pyinma scantlings	111	5,556	...	...	111	5,556
Total ...	40,246	860,147	30,993	1,503,578	71,239	2,363,725
Disposed of locally.						
Teak logs	...	...	1,108	39,593	1,108	39,593
Logs other than teak	1	55	50	2,500	51	2,555
Paddy-field teak logs	...	...	15,412	293,398	15,412	293,398
Drift teak logs	...	...	1,112	48,045	1,112	48,045
Drift logs other than teak	...	...	209	8,450	209	8,450
Teak poles	...	...	447	55	447	55
Total ...	1	55	18,368	392,041	18,369	392,096
Used, lost, drifted, &c.						
Teak logs	1	11	6	209	7	220
Teak scantlings	3	182	...	...	3	182
Pyinma scantlings	2	64	...	...	2	64
Logs other than teak	...	...	1	50	1	50
Paddy-field teak logs	...	...	1	19	1	19
Drift teak logs	...	...	106	5,312	106	5,312
Total ...	6	277	114	5,590	120	5,867
Delivered to claimants.						
Teak logs	...	..	12,060	491,782	12,060	491,782
Drift teak logs	4,255	91,600	...	...	4,255	91,600
Drift woods other than teak	2	50	...	...	2	50
Logs other than teak	...		35	1,580	35	1,580
Total ...	4,257	91,650	12,095	493,362	16,352	585,012
Carried over	222,224	11,794,430	117,526	4,940,430	409,820	16,734,929

ANNUAL FORM NO. 56A [PRESCRIBED].—*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally for the year 1890-91*—concluded.

Particulars.	Tenasserim circle.		Pegu circle.		Total of each head.	
	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
Brought forward ...	174,173	6,663,569	103,683	4,366,774	277,856	11,030,343
RECEIVED BY CONVERSION IN DEPÔTS.						
Teak scantlings ... ... Tons	3	182	...	...	3	182
Pyinmana scantlings ... "	124	6,211	...	...	124	6,211
Pyinkado scantlings ... "	15	772	...	...	15	772
Pyinkado sleepers ... ... "	208	311	...	...	208	311
Pyinma sleepers ... ... "	1,367	4,746	...	...	1,367	4,746
Total ...	1,717	12,222	...	...	1,717	12,222
FOREIGN TIMBER ENTERED AT KADO REVENUE STATION.						
Teak logs	116,322	5,118,168	...	...	116,322	5,118,168
Woods other than teak	12	480	...	...	12	480
	116,334	5,118,648	...	...	116,334	5,118,648
DRIFT COLLECTED IN VARIOUS DIVISIONS.						
Teak logs	...	...	13,552	555,004	13,552	555,004
Teak waif logs	...	...	...	...	...	...
Logs other than teak	...	...	235	9,452	235	9,452
Total ...	...	...	13,787	564,456	13,787	564,456
IN TRANSIT.						
Drift teak logs	...	...	126	9,200	126	9,200
GRAND TOTAL ...	292,224	11,794,439	117,596	4,940,430	409,820	16,734,869

Particulars.	Tenasserim circle.		Pegu circle.		Total of each head.	
	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.	Number or quantity.	Cubic feet.
Brought forward ...	292,224	11,794,439	117,596	4,940,430	409,820	16,734,869
TRANSFERRED TO DEPÔTS.						
Teak logs	...	...	26,968	1,272,410	26,968	1,272,410
Drift logs other than teak	...	...	5	162	5	162
Logs other than teak	...	...	180	8,968	180	8,968
Drift teak logs	...	...	1,397	51,143	1,397	51,143
FROM THARRAWADDY TO PROME.						
Paddy-field teak	...	...	88	1,672	88	1,672
Total ...	...	...	28,638	1,334,355	28,638	1,334,355
CLEARED ON PAYMENT OF DUTY.						
Foreign teak logs	110,143	4,846,292	...	...	110,143	4,846,292
Foreign other kinds	3	120	...	...	3	120
Total ...	110,146	4,846,412	...	...	110,146	4,846,412
CONVERTED IN DEPÔTS.						
Teak logs	7	258	...	...	7	258
Pyinma logs	302	17,946	...	...	302	17,946
Pyinkado logs	20	491	...	...	20	491
Total ...	329	18,695	...	...	329	18,695
RETURNED TO CONTRACTORS.						
Teak logs	...	...	420	8,235	420	8,235
CLOSING BALANCE.						
Teak logs	233	3,085	22,994	1,094,939	23,227	1,098,024
Drift teak logs	3,033	113,077	1,057	50,523	4,090	163,600
Teak sleepers	...	...	42	63	42	63
Sleepers other than teak	2,018	3,480	...	...	2,018	3,480
Logs other than teak	1,053	46,975	143	5,753	1,196	52,728
Teak scantlings	3	178	...	...	3	178
Scantlings other than teak	148	7,423	...	...	148	7,423
Posts other than teak	7	81	...	...	7	81
Drift logs other than teak	36	1,818	4	160	40	1,978
Padauk planks	1	52	...	...	1	52
Paddy-field teak logs	...	...	2,728	51,832	2,728	51,832
Foreign teak	130,607	5,796,656	...	...	130,607	5,796,656
Foreign timber other than teak ...	84	3,315	...	...	84	3,315
Confiscated other than teak	12	783	...	...	12	783
Thingan hulls	3	266	...	...	3	266
Waif logs other than teak	1	13	...	...	1	13
Total ...	137,239	5,977,203	26,968	1,203,269	164,207	7,180,472
GRAND TOTAL ...	292,224	11,794,439	117,596	4,940,430	409,820	16,734,869

FORM NO. 57 [PRESCRIBED].—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1890-91.*

Description of timber and other produce	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
TENASSERIM CIRCLE.			Rs.			Rs.	Rs.	Rs.	
Teak logs	201	4,099	1,658	233	3,085	1,572	...	86	
Drift logs	5,131	175,427	51,380	3,082	1,15,691	36,846	...	14,534	
Logs (woods, other kinds) ...	673	42,957	14,191	1,063	47,323	13,699	...	492	
Sleepers	9,576	14,609	16,284	2,018	3,480	1,820	...	14,464	
Teak scantlings	3	178	142	3	178	202	60	..	
Scantlings other than teak ...	200	10,013	5,475	149	7,475	4,312	.	1,163	
Foreign teak	124,428	5,524,780	24,88,560	130,607	5,796,656	20,12,140	1,23,580	...	
Foreign wood (other kinds)	75	2,955	750	84	3,315	840	90	...	
Total ...	140,487	5,775,018	25,78,440	137,239	5,077,203	26,71,431	92,991	..	
PEGU CIRCLE.									
Teak logs	26,525	1,311,963	9,28,375	22,994	1,094,939	7,12,814	...	2,15,561	
Teak paddy-field logs	15,602	296,438	78,010	2,728	51,892	13,640	...	64,370	
Teak sleepers	42	63	21	42	63	21	...	...	
Logs other than teak	89	3,485	712	143	5,752	1,144	432	...	
Teak drift logs	900	46,586	22,494	1,057	50,523	23,254	770	...	
Drift logs other than teak ...	21	1,012	164	4	100	32	...	132	
Total ...	43,269	1,659,547	10,29,776	26,968	1,203,269	7,50,905	...	2,78,861	

Net difference against the year 185,870.

FORM NO. 57A.—*Abstract showing the value of the Live and Dead Stock for the year 1890-91.*

Particulars.	On hand at commencement of year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs.			Rs.	Rs.	Rs.	
Live-stock	10	...	10,470	11	...	11,470	1,000	...	
Buildings	27	...	19,108	30	...	18,498	...	610	
Dead-stock	...	...	12,337	...	...	11,584	...	753	
Total Tenasserim Circle ...	...	...	41,915	41	...	41,552	...	363	
Live-stock	37	...	48,600	36	...	47,500	...	1,100	
Buildings	45	..	54,720	40	...	54,566	...	154	
Dead-stock	...	...	29,547	...	...	29,685	138	...	
Total Pegu Circle ...	...	...	1,32,867	...	...	1,31,751	...	1,116	
GRAND TOTAL LOWER BURMA...	...	...	1,74,782	...	...	1,73,303	...	1,47	

Net difference against the year 1,479.

FORM NO. 58 [PRESCRIBED].—*Summary of Revenue of the different Divisions for the year 1890-91.*

Budget heads—receipts.	Attarun division.	Kado division.	South Tenasserim division.	Total Tenasserim circle.	Agency division.	Rangoon division.	Tharrawaddy division.	Prome division.	Thayetmyo division.	Western division.	Toungoo division.	Shwegyin division.	Total Pegu circle.	Grand total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—														
(a) Timber	2,48,831	11,569	4,664	2,65,064	12,56,241	550	68,817	7,305	4,051	512	40	...	13,37,516	16,02,580
(b) Firewood and charcoal	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(c) Bamboos	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(d) Sandalwood	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...	...	...	...	...	...	...	...	...
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—														
(a) Timber	25,873	7,724	14,328	47,925	3,022	24,724	18,765	16,859	14,958	53,737	4,17,469	48,171	5,97,705	6,45,630
(b) Firewood and charcoal	230	13	12	255	16,029	3,051	781	236	118	170	167	345	20,897	21,152
(c) Bamboos	...	...	51	51	...	2,357	2,930	55	29	...	95	23	5,489	5,540
(d) Grazing and fodder grass	...	...	...	...	..	161	91	...	...	...	...	..	252	252
(e) Other minor produce	202	34	1,908	2,144	...	515	31,856	5,024	30,344	2,632	1,459	583	72,413	74,557
III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE	...	59,459	771	60,230	7,167	1,006	171	2,358	5,471	10,970	14,735	7,649	49,527	1,09,757
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—														
(a) Duty on foreign timber and other forest produce	...	1,85,539	...	1,85,539	...		...	...	...	...	...	...	...	1,85,539
(b) Revenue from shared and private forests	...	...	...	...	...	...	...	...	...	...	...	...	...	...
V.—MISCELLANEOUS—														
(a) Fines and forfeitures	160	3,448	330	3,938	15	215	3,813	3,577	2,630	128	193	38	10,609	14,547
(b) Refunds	267	6	...	273	...	387	2	...	...	...	...	...	389	662
(c) Other sources	915	7,226	789	8,930	4,058	216	2,574	399	338	343	332	265	8,525	17,455
Total ...	2,70,478	2,75,018	22,853	5,74,349	12,86,532	33,182	1,29,800	35,813	57,939	68,492	4,34,490	57,074	21,03,322	26,77,671

CALCUTTA:
The 9th June 1891.

J. BRIDGNELL, *Chief Superintendent,*
in charge Forest Account Branch, Comptroller-General's Office.

ANNUAL FORM No. 58 [PRESCRIBED].—*Summary of Expenditure of the different Divisions for the year 1890-91.*

Budget heads.	Attaran division.	Kado division.	South Tenasserim division.	Total Tenasserim circle.	Agency division.	Rangoon division.	Tharrawaddy division.	Prome division.	Thayetmyo division.	Western division.	Toungoo division.	Shwegyin division.	Total Pegu circle.	Grand Total.
A.—CONSERVANCY AND WORKS.														
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(a) Timber	1,49,794	6,056	4,380	1,60,230	17,918	66,608	1,44,597	10,121	7,695	25	1,12,662	478	3,60,104	5,20,334
(b) Firewood and charcoal	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(c) Bamboos	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(d) Sandalwood	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...	...	...	...	...	...	...	...	...
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—	706	919	...	1,625	1,107	1,614	859	603	1,372	2,121	993	230	8,899	10,524
III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE	...	27,144	237	27,381	1,980	1,166	...	493	1,464	5,242	5,710	474	16,529	43,910
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—														
(a) Duty on foreign Timber and other forest produce	...	6,687	...	6,687	...	...	...	...	...	...	...	...	...	6,687
(b) Revenue from shared and private forests	...	...	...	...	...	...	...	...	...	...	...	...	...	...
V.—RENT OF LEASED FORESTS AND PAYMENTS TO SHAREHOLDERS IN FORESTS MANAGED BY GOVERNMENT.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VI.—LIVE-STOCK, STORES, TOOLS AND PLANT—														
(a) Purchase of cattle	...	1,000	...	1,000	...	...	...	...	...	...	...	...	...	1,000
(b) Feed and keep of cattle	3,777	68	...	3,845	9,012	560	2,480	1,711	437	993	658	670	16,521	20,366
(c) Purchase of stores, tools and plant	1,212	174	8	1,394	2,464	200	381	79	179	92	64	95	3,554	4,948
VII.—COMMUNICATIONS AND BUILDINGS—														
(a) Roads and bridges	...	...	...	...	...	96	89	...	...	...	20	...	205	205
(b) Buildings	785	179	182	1,146	1,442	321	2,285	134	4,091	35	3,618	300	12,205	13,352
(c) Other works	12	...	...	12	346	...	2,947	...	8	425	...	...	3,726	3,738
VIII.—DEMARCATION, IMPROVEMENT, AND EXTENSION OF FORESTS—														
(a) Demarcation	203	231	64	518	...	102	1,022	...	8	...	1,860	10	3,002	3,520
(b) Compensation for land and rights	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(c) Surveys and working plans	9,481	...	98	9,579	1,197	10	884	6,153	...	...	...	...	6,244	17,823
(d) Sowing and planting	12,346	...	1,213	13,459	...	6,371	21,998	4,715	1,340	...	1,565	15	36,004	49,463
(e) Protection from fire	5,627	...	...	5,627	...	2,518	7,448	3,273	268	...	2,911	20	16,438	22,065
(f) Other works	...	...	23	23	...	...	3,087	3	...	...	363	...	3,453	3,476
IX.—MISCELLANEOUS—														
(a) Refunds	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Law charges	34	14	...	48	...	...	...	...	3	...	...	...	3	51
(c) Other charges	1,380	979	97	2,456	481	12	1,187	611	139	29	14	6	2,479	4,935
Total A.—Conservancy and Works	1,85,457	43,451	6,322	2,35,230	35,947	79,578	1,89,244	27,896	17,004	8,962	1,30,436	2,298	4,91,367	7,26,597
B.—ESTABLISHMENT.														
I.—SALARIES—														
(a) Conservators	12,000	...	...	12,000	13,468	...	...	...	...	...	...	...	13,468	25,468
(b) Superior officers	22,653	7,800	3,000	33,453	15,351	11,634	15,442	3,765	9,600	9,527	9,124	6,600	81,033	1,14,486
(c) Subordinate forest and depôt establishments	6,904	7,458	2,641	17,003	9,951	6,529	7,816	4,420	2,336	3,856	6,515	3,530	43,855	60,858
(d) Office establishments	9,454	5,903	1,566	16,923	13,890	2,037	4,052	1,823	1,483	1,499	2,586	1,536	28,806	45,421
(e) Deputation and special allowances	2,751	656	396	3,805	2,278	916	2,284	1,058	658	1,025	1,056	656	9,935	13,740
II.—TRAVELLING ALLOWANCES—														
(a) Conservators	1,631	...	...	1,631	2,234	...	...	...	...	...	...	...	2,234	3,865
(b) Superior officers	4,583	2,332	1,120	7,935	2,060	2,111	5,040	1,724	1,365	2,228	1,843	1,291	17,592	25,527
(c) Subordinate forest and depôt establishments	851	776	188	1,815	1,121	1,221	1,251	227	461	1,770	688	945	7,609	9,424
(d) Office establishments	595	147	133	875	169	309	372	106	16	242	115	136	1,555	2,430
III.—CONTINGENCIES—														
(a) Stationery	...	...	...	...	14	...	2	...	...	...	...	...	16	16
(b) Carriage of tents and records	290	38	6	334	1	39	3	...	...	15	6	3	67	401
(c) Rents, rates, and taxes	39	25	...	64	3,012	3	239	53	210	40	23	10	3,590	3,654
(d) Pay of police guards	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(e) Official postage	145	123	38	306	393	123	148	68	75	113	51	36	1,006	1,312
(f) Sundries	597	68	55	720	454	207	816	369	50	125	59	118	2,198	2,918
Total B.—Establishment	62,093	25,288	9,143	96,463	63,795	25,219	36,945	13,613	16,274	20,442	22,015	14,763	2,13,056	3,09,520
GRAND TOTAL OF EXPENDITURE	2,47,550	68,679	15,465	3,31,694	99,742	1,04,797	2,26,189	41,509	33,278	29,404	1,52,453	17,061	7,04,423	10,36,117

CALCUTTA:
The 15th June 1891.

J. BRIDGNELL, *Chief Superintendent,*
in charge Forest Account Branch, Comptroller-General's Office.

Dr. ANNUAL FORM NO. 59 [PRESCRIBED].—*Account-current for the year 1890-91.* *Cr.*

TENASSERIM CIRCLE.	Rs. A. P.	Rs. A. P.
To Cash balance	.....	309 4 3
To VIII.—Assessed Taxes—		
Income-tax deductions from salaries	.....	1,645 14 2
Revenue as per Annual Summary Form No. 58	.....	5,74,348 12 8
To Service Funds—		
Civil Fund, Ordinary, Bengal	.....	
Civil Fund, Additional, Bengal	.....	
Military Fund, Bengal	.....	
Military Fund, Madras	.....	
Military Orphan Fund, Bengal	.....	
Uncovenanted Service Family Pension Fund, Bengal ...	1,150 5 7	
General Family Pension Fund	.....	
Hindu Family Annuity Fund	.....	
		1,150 5 7
To Deposits	.....	.....
To Forest Cash Remittance (Local)—		
Forest cheques drawn	3,23,201 9 0	
Inter-divisional transfers	1,008 11 2	3,24,210 4 2
To advances recoverable	.....	73,268 4 0
Suspense	.....	0 1 0
To Account-current (other Governments)—		
Remittances from Government of India	.....	10,329 1 0
To Inter-Departmental Transfers—		
Public Works Department	.....	
Military Department, Bengal	500 6 0	
To Civil Department— Rs. A. P.		
Jails 2 8 0	.....	
Mathematical Instrument Department	.....	
Miscellaneous	.....	
Survey of India Department 28 0 0	30 8 0	
Marine Department	23 14 8	554 12 8
Total ..	.....	9,85,816 11 6

TENASSERIM CIRCLE.	Rs. A. P.	Rs. A. P.
By Expenditure as per Annual Summary Form No. 58	.....	3,31,693 10 6
Deposits	.....	.....
By Forest Remittance (Local)—		
Remittance to treasuries	5,46,044 14 0	
Inter-divisional transfers	210 12 8	5,46,255 10 8
By Advances recoverable	.....	64,933 3 3
Suspense	.....	0 1 0
By Account-current (other Governments)—		
Remittance to the Government of India	.....	27,340 4 6
By Inter-Departmental Transfers—		
Public Work Department, ordinary branches	12 7 7	
Military Department, Bombay	7,874 0 5	
By Civil Department—		
Rs. A. P.		
Jails 7,154 10 0	.....	
Miscellaneous 40 8 0		
	7,195 2 0	15,061 10 0
By Cash balance	.....	512 3 7
Total ...	.....	9,85,816 11 6

CALCUTTA:
The 9th June 1891.

J. BRIDGNELL, *Chief Superintendent,*
in charge Forest Account Branch, Comptroller-General's Office.

Dr. ANNUAL FORM NO. 59 [PRESCRIBED].—*Account-current for the year 1890-91.* *Cr.*

PEGU CIRCLE.		Rs. A. P.	Rs. A. P.
To Cash balance		.....	595 15 9
To VIII.—Assessed Taxes—			
Income-tax deductions from salaries		.....	3,550 13 8
Revenue as per Annual Summary Form No. 58		.....	21,03,321 14 7
To Service Funds—			
Civil Fund, Ordinary, Bengal		.....	.....
Civil Fund, Additional, Bengal		.....	.....
Military Fund, Bengal		.....	.....
Military Fund, Madras		.....	.....
Military Orphan Fund, Bengal		.....	.....
Uncovenanted Service Family Pension Fund, Bengal		1,041 10 0	.....
General Family Pension Fund		.....	.....
Hindu Family Annuity Fund		.....	.....
			1,041 10 0
To Deposits		.....	.....
To Forest Cash Remittances (Local)—			
Forest cheques drawn		6,98,185 6 10	.....
Inter-divisional transfers		44,333 15 8	.....
			7,42,519 6 6
To Advances recoverable		.....	3,16,227 6 8
Suspense		.....	8 12 0
To Account-current (other Governments)—			
Remittances from Government of India		2,341 13 2	.....
Remittances from Government of Bengal		15 0 0	.....
			2,356 13 2
To Inter-Departmental Transfers—			
Public Works Department		.....	.....
	Rs. A. P.		
Military Department, Madras	54 6 4	.....	.....
Military Department, Bengal	1,093 6 0	1,147 12 4	.....
To Civil Department—	Rs. A. P.		
Jails	157 1 5	.....	.....
Survey of India Department	883 4 0	1,040 5 5	.....
Miscellaneous	...	.....	.....
			2,188 1 9
Total		.....	31,71,810 14 1

PEGU CIRCLE.		Rs. A. P.	Rs. A. P.
By Expenditure as per Annual Summary Form No. 58		.....	7,04,423 3 10
Deposits		.....	.....
By Forests Cash Remittances (Local)—			
Remittances to treasuries		17,70,712 10 0	.....
Inter-divisional transfers		47,268 8 11	.....
			18,17,981 2 11
By Advances recoverable		.....	3,14,365 10 1
Suspense		.....	17 11 2
By Account-current (other Governments)—			
Remittances to the Government of India		270 8 8	.....
Remittances to the Government of Madras		2,34,043 9 1	.....
			2,34,314 1 9
By Inter-Departmental Transfers—			
	Rs. A. P.		
Public Works Department, State Railways	45,756 13 4	.....	.....
Public Works Department, ordinary branches	1,161 0 0	46,917 13 4	.....
Military Department		.....	.....
Civil Department		.....	.....
	Rs. A. P.		
Jails	19,201 2 4	.....	.....
Miscellaneous	175 9 5	.....	.....
Police	20 2 0	19,396 13 9	.....
Telegraph Department		90 0 0	.....
Marine Department, Bombay		33,903 13 5	.....
			1,00,308 8 6
By Cash balance		.....	380 7 10
Total		.....	31,71,810 14 1

CALCUTTA:
The 15th June 1891.

J. BRIDGNELL, *Chief Superintendent,*
in charge Forest Account Branch, Comptroller-General's Office.

ANNUAL FORM No. 59A [PRESCRIBED].—*Account-current for the year 1890-91.*

Dr.

	Tenasserim circle.	Pegu circle.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
To Cash balance	309 4 3	595 15 9	905 4 0
To VIII.—Assessed Taxes—			
Income-tax deductions from salaries	1,645 14 2	3,550 13 8	5,196 11 10
Revenue as per Annual Summary Form No. 58 ...	5,74,348 12 8	21,03,321 14 7	26,77,670 11 3
To Service Funds—			
Civil Fund, Ordinary, Bengal	.....	.....	.....
Civil Fund, Additional, Bengal	.....	.....	.....
Military Fund, Bengal	.....	.....	.....
Military Fund, Madras	.....	.....	.....
Military Orphan Fund, Bengal	.....	.....	.....
Uncovenanted Service Family Pension Fund, Bengal	1,150 5 7	1,041 10 0	2,191 15 7
General Family Pension Fund	.....	.....	.....
Hindu Family Annuity Fund	.....	.....	.....
To Deposits	.....	.....	.....
To Forest Cash Remittances (Local)—			
Forest cheques drawn	3,23,201 9 0	6,98,185 6 10	10,21,386 15 10
Inter-divisional transfers	1,008 11 2	44,333 15 8	45,342 10 10
Advances recoverable	73,268 4 0	3,16,227 6 8	3,89,495 10 8
Suspenses	0 1 0	8 12 0	8 13 0
To Account-current (other Governments)—			
Remittances from Government of India	10,329 1 0	2,341 13 2	12,670 14 2
Remittances from Government of Bengal ...	.....	15 0 0	15 0 0
To Inter-Departmental Transfers—			
Public Works Department	.....	.....	.....
Military Department, Bengal	500 6 0	1,093 6 0	1,593 12 0
Military Department, Madras	.....	54 6 4	54 6 4
To Civil Department—			
Jails	2 8 0	157 1 5	159 9 5
Mathematical Instrument Department	.....	.....	.....
Miscellaneous	.....	.....	.....
Survey of India Department	28 0 0	883 4 0	911 4 0
Marine Department	23 14 8	.....	23 14 8
Total ...	9,85,816 11 6	31,71,810 14 1	41,57,627 9 7

Cr.

	Tenasserim circle.	Pegu circle.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
By Expenditure as per Annual Summary Form No. 58 ...	3,31,693 10 6	7,04,423 3 10	10,36,116 14 4
„ Deposits	.....	.....	.....
By Forest Cash Remittances (Local)—			
Remittances to treasuries	5,46,044 14 0	17,70,712 10 0	23,16,757 8 0
Inter-divisional transfers	210 12 8	47,268 8 11	47,479 5 7
Advances recoverable	64,933 3 3	3,14,385 10 1	3,79,318 13 4
Suspense	0 1 0	17 11 2	17 12 2
By Account-current (other Governments)—			
Remittances to the Government of India	27,340 4 6	270 8 8	27,610 13 2
Remittances to the Government of Madras	.....	2,34,043 9 1	2,34,043 9 1
By Inter-Departmental Transfers—			
Public Works Department, ordinary branches ...	12 7 7	1,161 0 0	1,173 7 7
Public Works Department, State Railways ...	.....	45,756 13 4	45,756 13 4
Military Department, Bombay	7,874 0 5	.....	7,874 0 5
Civil Department	.....	.....	.....
Jails	7,154 10 0	19,201 2 4	26,355 12 4
Miscellaneous	40 8 0	175 9 5	216 1 5
Police	.....	20 2 0	20 2 0
Telegraph Department	.....	90 0 0	90 0 0
Marine, Department, Bombay	.....	33,903 13 5	33,903 13 5
By Cash balance	512 3 7	380 7 10	892 11 5
Total ...	9,85,816 11 6	31,71,810 14 1	41,57,627 9 7

ANNUAL FORM NO. 60 [PRESCRIBED].—*Revenue received and Outstandings on account of Revenue for the year 1890-91.*

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the department at end of year.	Remarks.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. A.	Rs. A. P.	
Attaran	Timber and other produce, &c.	6,239 0 0	2,71,930 15 5	2,78,169 15 5	2,76,477 7 5	1,692 8 0	
Kado	Ditto	.....	2,75,172 2 1	2,75,172 2 1	2,75,018 2 1	154 0 0	
South Tenasserim ...	Ditto	.....	22,853 3 2	22,853 3 2	22,853 3 2	.....	
	Total Tenasserim Circle ...	6,239 0 0	5,69,956 4 8	5,76,195 4 8	5,74,348 12 8	1,846 8 0	
Thayetmyo	Timber and other produce	4,438 3 0	53,861 1 0	58,299 4 0	57,939 4 0	360 0 0	
Prome	Ditto	.....	35,813 6 7	35,813 6 7	35,813 6 7	.....	
Tharrawaddy ...	Ditto	.....	1,29,798 15 3	1,29,798 15 3	1,29,798 15 3	.....	
Rangoon	Ditto	.....	33,181 15 1	33,181 15 1	33,181 15 1	.....	
Toungoo	Ditto	.....	4,34,495 15 10	4,34,495 15 10	4,34,490 10 11	5 4 11	
Shwegyin	Ditto	.....	57,072 15 9	57,072 15 9	57,072 15 9	.....	
Western	Ditto	.....	68,492 3 0	68,492 3 0	68,492 3 0	.....	
Agency	Ditto	11,181 12 0	13,14,112 13 11	13,25,294 9 11	12,86,532 5 11	38,762 4 0	
	Total Pegu Circle ...	15,619 15 0	21,26,829 6 5	21,42,449 5 5	21,03,321 12 6	39,127 8 11	
	GRAND TOTAL LOWER BURMA ...	21,858 15 0	26,96,785 11 1	27,18,644 10 1	26,77,670 9 2	40,974 0 11	

ANNUAL FORM No. 61 [PRESCRIBED].—*Statement of Outstandings and Liabilities on account of Contractors and Disbursers for the year 1890-91.*

Division.	Department debtor.			Department creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To department (outstandings).	By department (liabilities).	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. . P.	Rs. A. P.	Rs. A. P.	
Attaran	.....	67,688 11 3	67,688 11 3	11,038 15 0	60,975 2 9	72,014 1 9	4,325 6 6	.....	
Kado	.....	3,016 3 0	3,016 3 0	373 2 0	3,020 0 6	3,393 2 6	376 15 6	.....	
South Tenasserim	.....	2,563 5 9	2,563 5 9	1,859 13 9	938 0 0	2,797 13 9	234 8 0	.....	
Total Tenasserim Circle ...	.....	73,268 4 0	73,268 4 0	13,271 14 9	64,933 3 3	78,205 2 0	4,936 14 0	.....	
Agency	.....	3,345 15 1	3,345 15 1	795 0 3	3,519 15 4	4,314 15 7	969 0 6	.....	
Rangoon	.....	46,614 14 9	46,614 14 9	1,085 14 1	46,882 9 0	47,968 7 1	1,413 3 7	59 11 3	
Tharrawaddy	.....	1,61,678 8 6	1,61,678 8 6	20,785 5 0	1,49,126 9 7	1,69,911 14 7	8,233 6 1	.....	
Prome	.....	35,238 9 4	35,238 9 4	671 6 8	45,705 1 4	46,576 8 0	11,337 14 8	.....	
Thayetmyo	.....	12,014 6 9	12,014 6 9	288 10 6	11,977 0 0	12,265 10 6	251 3 9	.....	
Western	.....	7,320 5 4	7,320 5 4	249 11 7	7,125 9 9	7,375 5 4	55 0 0	.....	
Toungoo	.....	46,142 6 1	46,142 6 1	9,318 15 5	46,176 8 3	55,495 7 8	9,353 1 7	.....	
Shwegyin	.....	3,872 4 10	3,872 4 10	.....	3,872 4 10	3,872 4 10	.....	.....	
Total Pegu Circle ...	.....	3,16,227 6 8	3,16,227 6 8	33,394 15 6	3,14,385 10 1	3,47,780 9 7	31,612 14 2	59 11 3	
GRAND TOTAL LOWER BURMA ...	.....	3,89,495 10 8	3,89,495 10 8	46,666 14 3	3,79,318 13 4	4,25,985 11 7	36,549 12 2	59 11 3	

CALCUTTA :
The 15th June 1891.

J. BRIDGNELL, *Chief Superintendent,*
in charge Forest Account Branch Comptroller-General's Office.

ANNUAL FORM NO. 62 [PRESCRIBED].—*Statement showing the Financial Results in the Tenasserim and Pegu Circles for the year 1890-91.*

Division.		Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection, and improvement of forests.	Total		Remarks
		Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
TENASSERIM ...	Attaran	34,498	28,039	18,343	9,938	5,426	52,841	43,402	
	East Salween...	1,76,066	1,20,798	7,333	6,429	24,532	1,83,399	1,51,759	
	West Salween...	38,267	26,303	1,971	1,672	15,666	40,238	43,641	
	Kado	11,569	9,818	2,63,449	66,287	231	2,75,018	76,336	
	South Tenasserim	4,664	4,810	16,189	6,977	4,768	22,853	16,555	
	Total ...	2,65,064	1,89,768	3,09,285	91,303	50,623	5,74,349	3,31,694	
PEGU ...	Thayetmyo	37,913	20,493	48,418	7,707	8,115	86,331	36,315	
	Prome	85,199	22,168	26,150	6,566	20,391	1,11,349	49,125	
	Tharrawaddy	7,35,086	1,96,437	60,811	21,681	58,600	7,95,897	2,76,718	
	Rangoon	2,07,078	90,684	31,626	9,962	19,715	2,38,704	1,20,361	
	Toungoo	2,64,983	1,43,269	4,19,716	10,241	18,748	7,04,699	1,72,258	
	Shwegyin	19,668	9,273	49,424	4,254	4,445	69,092	17,972	
	Western	13,147	16,253	57,010	7,484	5,807	70,157	29,544	
	Agency	3,960	...	23,124	2,130	...	27,093	2,130	
	Total ...	13,87,043	4,98,577	7,16,279	70,025	1,35,621	21,03,322	7,04,423	
GRAND TOTAL LOWER BURMA ...		16,52,107	6,88,345	10,25,564	1,61,328	1,86,444	26,77,671	10,36,117	

APPENDIX A.

Statement showing the cost of feed of Elephants of the Forest Department for the year 1890-91 as compared with that of the Commissariat Department for the same period.

Division.	Number of elephants at commencement of the year.	Casualties during the year.	Number of elephants at close of the year.	Cost of feed.	Cost of keep, including gear, &c.	Cost of medicines.	Total expenditure for the year.	Average monthly cost per animal of the Forest Department.	Average monthly cost per animal of the Commissariat Department.	Amount paid by officers for carriage elephants.	Value of labour in cash receipts and work performed.	Remarks.
TENASSERIM CIRCLE.				Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Attaran	7	...	7*	901 9 6	2,005 0 0	50 0 0	2,956 9 6†	32 0 7†	43 15 10	85 0 0	2,689 8 0	* Inclusive of a calf † Exclusive of a calf.
East Salween	2	...	2	.....	508 0 0	.....	508 0 0			71 0 0	.....	
West Salween	1	...	1	.....	312 0 0	.....	312 0 0			.....	244 0 0	
Kado	...	...	1	.....	67 14 9	.....	67 14 9			5 0 0	10 0 0	
Total ...	10	...	11	901 9 6	2,892 14 9	50 0 0	3,844 8 3	.....	.....	161 0 0	2,943 0 0	
PEGU CIRCLE.												
Thayetmyo	1	...	2	.....	423 0 0	14 0 0	437 0 0	.....	.....	181 0 0	796 0 0	
Prome	3	...	10	3 0 0	1,672 12 0	35 1 0	1,710 13 0	.....	.....	136 0 0	3,560 0 0	
Tharrawaddy	11	...	3	53 12 0	2,399 13 9	26 3 0	2,479 12 9	.....	.....	659 0 0	3,435 0 0	
Rangoon	2	...	2	.....	560 1 9	.....	560 9	37 3 4	48 9 2	76 0 0	720 0 0	
Toungoo	2	...	2	.....	636 0 3	22 0 0	658 0 3	.....	.....	27 0 0	1,870 0 0	
Shwegyin	2	...	2	8 0 0	646 0 6	16 0 0	670 0 6	.....	.....	37 0 0	1,025 0 0	
Western	3	...	3	.....	992 8 10	1 0 0	993 8 10	.....	.....	96 0 0	3,120 0 0	
Agency	13	1	12	4,542 5 4	4,229 5 7	239 14 6	9,011 10 5	.....	.....	7 0 0	25,040 0 0	
Total ...	37	1	36	4,607 1 4	11,559 11 8	354 2 6	16,520 15 6	.....	.....	1,219 0 0	39,566 0 0	
GRAND TOTAL LOWER BURMA ...	47	1	47	5,508 10 10	14,452 10 5	404 2 6	20,365 7 9	.....	.....	1,380 0 0	42,509 0 0	

APPENDIX B.

List of Buildings of which the cost exceeds Rs. 200 in Lower Burma.

Division.	No.	Name of building.	Station.	Remarks.
		TENASSERIM CIRCLE.		
		(a) On which no rent is paid.		
Attaran	1	Forest office	Moulmein.	
	3	Elephant-sheds		
	1	Paddy-shed		
	1	Rest-house	Natchaung.	
	1	Guard-house	Nantè.	
	4	Guard-houses	Moulmein.	
East Salween	1	Rest-house	Gyaing on the Haungtharaw.	
	1	Bungalow	Kawkareik.	
	1	Rest-house	Mèpalè.	
	1	Guard-house	Gyaing.	
South Tenasserim	1	Office	Mergui.	
	1	Guard-house	Tavoy.	
Kado	1	Guard-house	Martaban.	
	1	Guard-house	Moulmein.	
	3	Offices and two out-houses ...	Kado.	
	1	Lascars'-house		
	1	Upper guard-house ...		
	1	Lower guard-house ...		
	1	Coal-shed	Battery Point.	
	1	Bungalow	Shwegun.	
	1	Forest Ranger's quarters ...		
West Salween ...	1	Rest-house	Kyunchaung.	
		(b) On which rent is paid.		
East Salween ...	1	Bungalow	Kawkareik.	
		PEGU CIRCLE.		
		(a) On which no rent is paid.		
Prome	5	Rest-houses	Kadinngasin, Taunglè, Thèmè, Kwingyi, Kaunglaungdaing.	
	1	Ranger's quarters ...	Kadinngasin.	
	1	Elephant-shed	Migyaungyi.	
	1	Forest bungalow	Paungdè.	
Tharrawaddy	1	Forest office	Tharrawaddy.	
	8	Rest-houses	Wo, Seywa, Yetho, Kangyi Hmawin, Kanzan, Bawbin, and Kwemakaing.	
Rangoon	1	Forest bungalow	Pegu.	
	3	Revenue stations	Tawlatò, Hlègu, and Pegu.	
	2	Rest-houses	Palòn and Kinbadi.	
Toungoo	1	Forest office	Toungoo.	
	6	Rest-houses	Tabotkwè, Zibyubin, Banbwèbin, Minyè, Pathichaung, and Pyunchaung.	
	1	Overseer's quarters ...	Toungoo.	
Shwegyin	1	Rest-house	Myitkyo.	
	1	Depôt gaung's quarters ...		
Agency	1	Office quarters	Kommendine.	
	1	Overseer's house		
	6	Guard-houses		
	1	Mahout's quarters ...		
	1	Elephant-shed		
	1	Seasoning-shed		
		(b) On which rent is paid.		
Thayetmyo ...	1	First-class bungalow ...	Thayetmyo.	
Prome ...	1	Forst office	Prome.	
Tharrawaddy ...	1	First-class bungalow ...	Tharrawaddy.	
Toungoo ...	1	First-class bungalow ...	Toungoo.	
Shwegyin ...	1	Forest Officer's quarters ...	Shwegyin.	

APPENDIX C.

Statement showing the Exports of Timber and other Forest Produce from the Port of Rangoon during the official year 1890-91 (Private and Government).

Articles and countries to which exported.		Quantity.	Value.
			Rs.
Wood—			
Teak—			
To United Kingdom ...	C. tons	24,482	24,60,649
„ Germany, Bremen ...	„	21	1,680
„ Spain, Gibraltar ...	„	.....	.....
„ Malta ...	„	15	1,875
„ Egypt, Port Said ...	„	90	11,815
„ Mauritius ...	„	.....	.....
„ Canada ...	„	10	1,000
„ South America, Rio de Janeiro ...	„	15	3,000
„ Cape Colony, Cape Town ...	„	.....	.....
„ Ceylon ...	„	1,134	72,942
„ Japan ...	„	43	4,180
„ Straits Settlements ...	„	100	9,333
„ Bengal, Calcutta ...	„	24,553	15,80,795
„ Bengal, other ports ...	„	61	6,849
„ Bombay, Bombay ...	„	39,292	22,63,911
„ Madras, Madras ...	„	16,163	10,70,785
„ Madras, other ports ...	„	4,001	3,10,725
„ Provincial ports ...	„	532	54,015
„ Kattywar, Jamnugger ...	„	78	3,400
„ Pondicherry ...	„	85	6,000
Total ...		110,675	78,63,014
Other timber—			
To France, Marseilles ...	Tons	.....	.....
„ Germany, Hamburg ...	„	.....	.....
„ Malta ...	„	.....	.....
„ Egypt, Port Said ...	„	.....	.....
„ Cochin-China, Saigon ...	„	2	150
„ Straits Settlements ...	„	1	81
„ Bengal, Calcutta ...	„	72	3,155
„ Bombay, Bombay ...	„	3	180
„ Bengal, other ports ...	„	.....	.....
„ Madras, Madras ...		.....	.....
„ Madras, other ports ...	„	1	47
„ Provincial ports ...	„	19	454
„ Pondicherry ...	„	.....	.....
Total ...		98	4,067
Firewood—			
To Madras, other ports ...	Tons	4	60
Sandalwood—			
To Straits Settlements ...	Value	.....	524
„ Bengal, Calcutta ...	„	.....	400
„ Bengal, other ports ...	„	.....	.....
„ Bombay, Bombay ...	„	.....	2,175
„ Provincial ports ...	„	.....	656
Total ...		.....	3,755
Teak railway keys—			
To Bengal, Calcutta ...	Cwt.	2,200	6,600
„ Bombay, Bombay ...	„	740	2,220
„ Madras, Madras ...	„	1,320	3,960
Total ...		4,260	12,780
Wooden sleepers—			
To Bengal, Calcutta ...	Cwt.	11,281	34,587
„ Bengal, other ports ...	„	.....	.....
„ Madras, Madras ...	„	1,325	5,426
„ Madras, other ports ...	„	17,714	56,478
Total ...		30,320	96,491
Manufactures of—			
To United Kingdom ...	Value	.....	.....
„ Malta ...	„	.....	.....
„ Egypt, Port Said ...	„	.....	30
„ Mauritius ...	„	.....	.....
„ Ceylon ...	„	.....	4,362
„ Japan ...	„	.....	.....
„ Siam ...	„	.....	20
„ Straits Settlements ...	„	.....	2,788
„ Victoria ...	„	.....	6
„ Bengal, Calcutta ...	„	.....	5,473
„ Bengal, other ports ...	„	.....	3,036
„ Bombay, Bombay ...	„	.....	26
„ Madras, Madras ...	„	.....	592
„ Madras, other ports ...	„	.....	59,951
„ Provincial ports ...	„	.....	13,491
„ Pondicherry ...	„	.....	45,824
Total ...		.....	1,35,599

APPENDIX C—concluded.

Statement showing the Exports of Timber and other Forest Produce from the Port of Rangoon during the official year 1890-91 (Private and Government)—concluded.

Articles and countries to which exported.		Quantity.	Value.
			Rs.
Gums and Resins—			
Cutch and gambier—			
To United Kingdom ...	Cwt.	82,199	12,42,424
„ Germany, Hamburg ...	„	3,048	44,797
„ Holland ...	„	500	8,000
„ Italy, Genoa ...	„	200	3,200
„ Egypt, Port Said ...	„	1	16
„ United States, New York ...	„	250	3,750
„ Ceylon ...	„	1,129	26,603
„ China, Hongkong ...	„	83	1,410
„ Straits Settlements ...	„	5,571	83,054
„ Bengal, Calcutta ...	„	75,941	12,13,538
„ Bengal, other ports ...	„	107	2,031
„ Bombay, Bombay ...	„	28,114	4,11,009
„ Madras, Madras ...	„	3,079	63,182
„ Madras, other ports ...	„	2,489	54,282
„ Provincial ports ...	„	646	15,105
Total ...		203,350	31,73,061
Lac—			
Stick—			
To United Kingdom ...	Cwt.	30	768
„ Straits Settlements ...	„	54	1,020
„ Bengal, Calcutta ...	„	277	5,276
„ Madras, Madras ...	„	2,569	63,207
„ Madras, other ports ...	„	1,550	35,857
„ Provincial ports ...	„	252	5,609
Total ...		4,738	1,11,737
Oils—			
Wood—			
To United Kingdom ...	Galls.	.....	.....
„ Bengal, other ports ...	„	32	50
„ Madras, Madras ...	„	7,651	4,967
„ Madras, other ports ...	„	927	603
„ Provincial ports ...	„	56	72
„ Pondicherry ...	„	280	212
Total ...		8,946	5,904

APPENDIX C (*a*).

Statement showing the Imports of Timber and other Forest Produce into the Port of Rangoon during the official year 1890-91 (Private and Government).

Articles and countries from which imported.		Quantity.	Value.
			Rs.
Wood—			
Teak—			
From Bengal, other ports ...	C. tons	5	383
„ Provincial ports ...	„	814	53,337
Total ...		819	53,720
Other Timber—			
From United Kingdom ...	Tons	20	1,473
„ Straits Settlement ...	„	126	8,407
„ Bengal, other ports ...	„	.....	.....
„ Provincial ports ...	„	1,202	47,847
Total ...		1,348	57,727
Firewood—			
From United Staes ...	Tons	8	75
„ Siam ...	„	217	2,756
„ Straits Settlements ...	„	375	4,230
„ Provincial ports ...	„	73	786
Total ...		673	7,847
Sandalwood—			
From Straits Settlements ...	Value.	.....	1,910
„ Bengal, Calcutta ...	„	.....	925
„ Bombay, Bombay ...	„	.....	20,150
„ Madras, Madras ...	„	.....	5,122
„ Madras, other ports ...	„	.....	331
„ Provincial ports ...	„	.....	5,062
Total ...		.....	33,500
Manufactures of—			
From United Kingdom ...	Value	.....	27,448
„ Austria ...	„	.....	111
„ Germany ...	„	.....	641
„ Italy ...	„	.....	125
„ Ceylon ...	„	.....	90
„ China ...	„	.....	650
„ Straits Settlements ...	„	.....	61,043
„ Bengal, Calcutta ...	„	.....	72,201
„ Bengal, other ports ...	„	.....	1,670
„ Bombay, Bombay ...	„	.....	1,350
„ Madras, Madras ...	„	.....	114
„ Madras, other ports ...	„	.....	177
„ Provincial ports ...	„	.....	41,664
Total ...		.....	2,07,284
Gums and Resins—			
Cutch and Gambier—			
From Straits Settements ...	Cwts.	2	35
„ Bengal, Calcutta ...	„	78	1,006
„ Bombay, Bombay ...	„	2	60
„ Madras, Madras ...	„	2	40
„ Provincial ports ...	„	.....	1,111
Total ...		84	2,852

APPENDIX C (*a*)—concluded.

Statement showing the Imports of Timber and other Forest Produce into the Port of Rangoon during the official year 1890-91 (Private and Government)—concluded.

Articles and countries from which imported.		Quantity.	Value.
			Rs
LAC—			
Stick—			
From Bengal, Calcutta ...	Cwts.	69	1,828
" Provincial ports ...	"	5	112
Total ...		74	1,940
OILS—			
Wood—			
From United Kingdom ...	Galls.	50	90
" China ...	"	96	80
" Straits Settlements ...	"	*670	967
" Provincial ports ...	"	12,052	4,775
Total ...		12,808	5,862

APPENDIX C (1).

Statement showing the Exports of Teak Timber from Moulmein for the year 1890-91.

Countries to which exported.		Quantity.	Value.
			Rs.
United Kingdom ...	Tons	6,451	6,90,266
Germany, Bremen ...	"	18	2,093
Spain, Gibraltar ...	"	1,360	1,32,978
Malta ...	"	48	3,996
Egypt, Port Said ...	"	2,114	2,11,471
Mauritius ...	"	625	46,513
Cape Colony, Cape Town ...	"	397	30,174
Ceylon ...	"	418	31,484
Straits Settlements ...	"	72	6,765
Bengal, Calcutta ...	"	21,326	16,41,896
Bengal, other ports ...	"	617	42,072
Bombay, Bombay ...	"	20,797	13,26,013
Madras, Madras ...	"	1,659	96,762
Madras, other ports ...	"	6,337	3,20,744
Provincial ports ...	"	567	38,205
Pondicherry ...	"	1,421	80,600
Total ...		64,227	47,01,434

APPENDIX C (2-*a*).

Statement showing the Exports of Shingles, Railway Keys, and Woods of other kinds from Moulmein, Tavoy, and Mergui for the year 1890-91.

Articles.	Whither exported.		Moulmein.		Tavoy.		Mergui.	
			Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
				Rs.		Rs.		Rs.
Teak shingles, staves, and ventilators.	United Kingdom ...	Tons	...	20	...	...	...	...
	Malta ...	"	...	3,518	...	...	...	...
	Egypt, Port Said ...	"	...	1,523	...	...	...	...
	Mauritius ...	"	...	16,709	...	...	...	...
	Ceylon ...	"	...	423	...	...	...	...
	Japan ...	"	...	300	...	...	...	...
	Straits Settlements ...	"	...	23,061	...	...	...	...
	Bengal, Calcutta ...	"	...	82,058	...	...	...	...
	Bengal, other ports...	"	...	30	...	...	...	...
	Bombay, Bombay ...	"	...	30	...	...	...	...
	Madras, other ports	"	...	327	...	...	...	...
	Provincial ports ...	"	...	39,065	...	...	...	...
	Pondicherry ...	"	...	1,345	...	...	...	...
Teak railway keys.	Bengal, Calcutta ...	Cwt.	895	1,252	...	...	...	...
	Bombay, Bombay ...	"	153	500	...	...	...	...
Other timber ...	France, Marseilles ...	Tons	9	270	...	...	...	...
	Germany, Hamburg ...	"	68	2,702	...	...	...	...
	Malta ...	"	35	1,680	...	...	...	...
	Egypt, Port Said ...	"	25	735	...	...	...	...
	Bengal, Calcutta ...	"	2,344	64,183	416¼	17,651	...	...
	Bombay, Bombay ...	"	347	15,016	...	...	...	...
	Madras, Madras ...	"	78	2,111	...	...	...	...
	Madras, other ports	"	271	8,367	...	...	...	...
	Provincial ports ...	"	1,459	50,813	...	...	...	...
	Pondicherry ...	"	58	2,202	...	...	...	...

APPENDIX C (2-b).

Statement showing the Exports of Boat-hulls and other Timber from the Port of Tavoy for the years 1889-90 and 1890-91.

Articles.	Whither exported.		1889-90. Quantity.	1889-90. Value.	1890-91. Quantity.	1890-91. Value.
				Rs.		Rs.
Boat-hulls ...	Provincial ports	No.	80	81,480	107	1,10,780
Other timber ...	Bengal, Calcutta	Tons	133½	5,950	416½	17,031
	Provincial ports	,,	...	...	179	5,380
		Total ...	...	87,430	...	1,33,781

APPENDIX C (3).

LOWER BURMA, TENASSERIM CIRCLE.

Statement showing the Exports of Minor Forest Produce from the Ports of Moulmein, Tavoy, and Mergui for the year 1890-91.

Articles.	Whither exported.		Moulmein. Quantity.	Moulmein. Value.	Tavoy. Quantity.	Tavoy. Value.	Mergui. Quantity.	Mergui. Value.
				Rs.	Pieces.	Rs.	Tons.	Rs
Timber	Provincial ports ...	Cwt.	...	...	5,050	11,414	12	20
Tanning bark	Ditto ...	,,	...	...	7,936½	1,380	...	...
Ondôn bark	Ditto ...	,,	...	...	4,111½	7,895	...	...
Sandalwood	Ditto ...	Viss	...	60	...	75	9,840	3,775
Ditto	Bengal, Calcutta ...	,,	...	9	...	...	...	...
Firewood	Provincial ports ...	Tons	...	...	17¾	380	No. 6,800	153
Cardamoms	Ditto ...	Cwt.	...	...	518	20,743	...	...
Dammer torches ...	Ditto ...	No.	...	...	11,000	284	547,270	17,475
Kanyin-fruit	Ditto ...	Bkts.	...	...	64	52	...	...
Orchids	Ditto ...	,,	...	...	...	187	...	...
Marian-fruit, pickled ...	Ditto ...	Cwt.	...	...	27½	47	...	...
Akyaw-wood	Ditto ...	Viss	...	...	...	...	2,175	3,054
Pyu bark	Ditto ...	,,	...	...	...	...	148,300	2,752
Rattans	Ditto ...	No.	...	...	...	...	11,506,150	50,719
Red-wood	Ditto ...	Viss	...	...	...	...	70,000	3,409
Wood-oil	Ditto ...	,,	Galls. 72	60	...	...	20,269	4,622
Ditto	United Kingdom ...	Galls.	1,292	923	...	...	...	...
Ditto	Madras, Madras ...	,,	20	65	...	...	...	...
Ditto	Other ports ...	,,	404	445	...	...	...	...
Karawè leaves ...	Provincial ports ...	Viss	...	...	...	...	613	4
Karawè fruit	Ditto ...	,,	...	...	...	...	2,120	1,750
Dammer	Ditto ...	,,	...	...	...	...	400	65
Honey	Ditto ...	,,	...	...	...	...	1,868	1,447
Beeswax	Ditto ...	,,	...	...	...	...	3	8
Fibre	Ditto ...	,,	...	...	...	...	20,045	1,600

APPENDIX C (4).

Statement showing the Imports of Timber and other Forest Produce into the Ports of Moulmein, Tavoy, and Mergui for the year 1890-91.

Articles.	Whence imported.		Moulmein. Quantity.	Moulmein. Value.	Tavoy. Quantity.	Tavoy. Value.	Mergui. Quantity.	Mergui. Value.
				Rs.	Pieces.	Rs.	Tons.	Rs.
Teak timber	Provincial ports ...	Tons	...	...	1¾	70	3 1/10	227
Teak shingles ...	Ditto ...	No.	...	...	16,875	345	...	...
Sandalwood	Ditto ...	Viss.	...	...	...	245	65	50
Wood-oil	Ditto ...	,,	...	...	152	67	...	...
Firewood	Ditto ...	Tons	...	...	15½	51	...	...
Vegetable fibre for cordage.	Ditto ...	Cwt.	...	...	279½	827	...	..
Dammer torches ...	Ditto ...	No.	...	...	1,250	33	...	...

APPENDIX D.

TENASSERIM CIRCLE.

Statement of Teak Trees girdled during the season 1890-91.

Division	Girdling officer.	Revising officer.	Forest district.	Locality.	Number of teak trees girdled.	Remarks
East Salween.	Mr W T. T McHarg, Assistant Conservator of Forests.	Mr. W. T. T. McHarg, Assistant Conservator of Forests.	Kyônket reserve	On the Kyônket chaung	24	
				Htunu and Htukotan chaungs	167	
				Total Kyônket ..	191	
			Mekanè reserve	On the Mantanbali chaung	56	
				On the Kanyinbin chaung	5	
				On the Pa chaung	36	
				Total Mekanè ...	97	
			Between Kyônket and Mekanè reserves.	On Htunu and Htukotan chaungs, left bank	103	Outside reserves.
				Total East Salween ...	391	
Kado.	Mr A Weston, Deputy Conservator of Forests.	Mr. A. Weston, Deputy Conservator of Forests.	Kyônsein forest	Kyônsein chaung, north bank ...	45	
				Kyônsein chaung, south bank	126	
			Kyunkana forest	Kyunkana chaung	100	
			Pabin forest .	Pabin forest	73	
			Tasinban forest	Upper	32	
				Lower	124	Outside reserves.
				Total Kado	500	
				GRAND TOTAL TENASSERIM CIRCLE ...	891	

PEGU CIRCLE.

Statement of Teak Trees girdled during the season 1890-91.

Division	Girdling officer.	Revising officer	Range.	Forest district.	Locality.	Number of teak trees girdled.	Total.	Remarks.
Thayetmyo.	Maung Yan, Ranger.	Mr F. W Thellu-son, Deputy Conservator of Forests.	Myedè .	Bangôn ...	On the east bank of the Bangôn chaung, Magyi-kyaw.	193		
					Kyetthungin	147		
					On the west bank of the Bangôn chaung, Yebôn-myaung	16		
					Nyaungbuket	244		
					Total Bangôn ...	600		
	Maung Tha Shun, Ranger	Mr. F. W Thellu-son, Deputy Conservator of Forests.	Kama .	Mindôn ..	On the south bank of the Mindôn chaung between the Aingma and Ngachin chaung.	600		
					Total Thayetmyo ...	...	1,200	Outside reserves
Prome.	Maung Aung .	Mr C H Hobart-Hampden, Deputy Conservator of Forests.	Nawin ...	Nawin ...	Forests on both banks of the Sun stream, a tributary of the North Nawin stream.	500		
					Total Prome ...	...	500	Outside reserves.
Tharrawaddy.	Mr F. J Branthwaite, Assistant Conservator of Forests	.....	Thônzè ...	Thonzè working circle.	Compartment No. 9	266		
					Compartment No. 27	98		
					Total Thonzè ...	364		
	Mr F J. Branthwaite, Assistant Conservator of Forests	.....	Kôn Bilin	Kôn Bilin working circle.	Compartment No. 32	311		
	Maung Wè, Ranger.	Mr G Q Corbett. Deputy Conservator Forests	.....	Kadin Bilin working circle.	Compartment No. 52	304		
					Compartment No. 53	371		
					Compartment No. 55	319		
					Total Kadin Bilin ...	994		
					Carried over ...	1,669	1,700	

PEGU CIRCLE—concluded.

Statement of Teak Trees girdled during the season 1890-91—concluded.

Division.	Girdling officer.	Revising officer.	Range.	Forest district.	Locality.	Number of teak trees girdled.	Total.	Remarks.
					Brought forward ...	1,669	1,700	
Tharrawaddy—*concluded.*	Mr. F. J. Branthwaite, Assistant Conservator of Forests.	.....	Mókka ...	Mókka working circle.	Compartment No. 44	443		
	Mr. F. J. Branthwaite, Assistant Conservator of Forests.	.....	Minhla ..	Minhla working circle.	Compartment No. 11	220		
					Compartment No. 12	155		
					Compartment No. 13	125		
					Compartment No. 14	47		
					Compartment No. 15	59		
					Total Minhla ...	606		
	Mr. F. J. Branthwaite, Assistant Conservator of Forests.	.....	Gamôn ...	Gamôn working circle.	Compartment No. 52	421		
					Compartment No. 53	64		
					Compartment No. 54	103		
					Compartment No. 55	111		
					Compartment No. 57	114		
					Compartment No. 58	353		
					Total Gamôn ...	1,166		
	Maung Ka Lè, Sub Assistant Conservator of Forests.	Mr. G. Q. Corbett, Deputy Conservator of Forests.	Bawbin ...	Bawbin working circle.	Compartment No. 25	264		
					Compartment No. 27	556		
					Compartment No. 36	248		
					Total Bawbin ...	1,068		
					Total Tharrawaddy ...	...	4,032	
Rangoon.	Maung Gauk, Ranger.	Mr. J. Nisbet, Deputy Conservator of Forests.	Zamayi ...	Pegu ...	North Zamayi, Lower Area II	200		
					South Zamayi, Lower Area I	300		
	Mr. J. Nisbet, Deputy Conservator of Forests.	...	...	Pegu	Kadet reserve	500		
					Total Rangoon ...	...	1,000	
Toungoo.	Maung Yaing, Ranger.	Mr. H. A. Hoghton, Deputy Conservator of Forests.	Thagaya...	Sawa ...	Thagyi chaung	216		
					Sapyin chaung	1,088		
					Tazo chaung	100		
					Taphangyo chaung	506		
					Lônyan chaung	110		
					Total Sawa ...	2,020		
	Maung Chit Su, Ranger.	Mr. H. A. Hoghton, Deputy Conservator of Forests.	Zeyawadi	Pyu. ...	Pyun chaung	477		
					Kyaungpein chaung	192		
					Minye chaung	956		
					Thabe chaung	177		
					Kyauk chaung	76		
					Phayo chaung	207		
	Mr. G. R. Long, Assistant Conservator of Forests.	Mr. H. A. Hoghton, Deputy Conservator of Forests.	Zeyawadi	Pyu ...	Welnet chaung	30		
					Baulaung chaung	52		
					Total Pyu ...	2,167		
	Maung Chit Su, Ranger.	Mr. H. A. Hoghton, Deputy Conservator of Forests.	Zeyawadi	Kun	Thitpyat chaung	367		
	Mr. G. R. Long, Assistant Conservator of Forests.	Mr. H. A. Hoghton, Deputy Conservator of Forests.	Zeyawadi	Kun ...	Kadet chaung	715		
					Kanyut chaung	517		
					Maunggyi	97		
					Winmedo chaung	500		
					Tukôkmyaung	345		
					Kayu chaung	50		
					Welnet chaung	119		
					Total Kun ...	2,710		
					Total Toungoo ...	...	7,497	Outside.
Shwegyin.	...	.....	...	...	On the Lwi, Baudaw, and Udo chaungs outside the Yenwe reserve.	1,000		
					Total Shwegyin ...	...	1,000	Outside.
					GRAND TOTAL PEGU CIRCLE ...	...	16,149	

APPENDIX E.

Statement of Outturn of Foreign Timber for the five years 1886-87 to 1890-91.

Name of Foreign State.	1886-87.						1887-88.						1888-89.					
	Full-sized.	Tons.	Under-sized.	Tons.	Stems.	Tons.	Full-sized.	Tons.	Under-sized	Tons.	Stems.	Tons	Full-sized	Tons.	Under-sized.	Tons.	Stems.	Tons.
Karenni	54,161	54,000	7,826	6,200	2,022	1,213	50,073	45,600	4,163	2,900	1,220	710	66,358	6,730	6,400	6,000	1,387	700
Mehan	...	...	...	...	...	...	...	..	...	..	...	...	935	930	...	...	13	6
Kyaingtaung	5,209	4,800	763	600	822	493	4,286	4,200	368	271	354	200	6,365	6,200	866	700	1,210	600
Maingloingyi	9,462	9,300	1,334	1,300	580	380	12,508	12,500	1,761	1,400	253	126	15,049	16,300	1,333	1,200	852	500
Thaungyin	16,717	16,000	17,507	13,000	1,347	800	15,242	14,500	10,607	7,500	2,931	1,500	11,087	11,200	8,582	8,300	870	500
Dagwin	1,454	1,500	457	400	19	12	1,829	1,800	1,563	940	29	16	480	600	627	600	38	20
Zimmè	11,165	10,100	1,183	900	1,210	605	7,274	7,277	1,009	620	903	460	4,323	4,400	343	300	250	130
Mehaingthun	18,795	17,600	1,696	1,400	204	125	2,330	2,050	161	100	24	13	7,899	8,900	293	200	52	29
Maingpan	...	...	...	...	..	...	...	...	...	...	.	..	..	...	...	...	..	...
Mônpe	...	...	...	...	...	...	...	...	..	...	...	...	149	140	...	...	...	...
Maingtun	...	...	...	...	...	...	...	...	..	..	...	..	...	...	...	...	...	...
Upper Thaungyin	220	200	37	20	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Ningyan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maukmè	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Maingpu	...	...	...	..	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Kyaingkan	...	...	...	...	...	.	...	...			.	...	...	...	...	...	...	...
GRAND TOTAL ...	117,163	113,500	30,803	23,820	6,204	3,628	93,542	87,927	19,672	13,731	5,744	3,025	112,639	55,400	18,444	17,300	4,672	2,485

Statement of Outturn of Foreign Timber for the five years 1886-87 to 1890-91—concluded.

Name of Foreign State.	1889-90. Full-sized.	Tons.	Under-sized.	Tons.	Stems	Tons.	1890-91. Full-sized.	Tons	Under-sized	Tons.	Stems	Tons.
Karenni	41,427	36,455	6,862	4,111	1,101	464	29,829	28,039	4,379	3,240	1,037	503
Mèhan	1,270	1,066	..	...	...	...	2,015	1,994	36	27	12	7
Kyaingtaung	8,339	7,338	1,009	605	2,610	1,096	9,267	8,711	805	596	1,159	561
Mainglôngyi	8,711	7,665	930	558	756	317	9,352	8,791	2,120	1,569	1,380	668
Thaungyin	19,015	16,733	10,050	6,030	3,648	1,532	16,365	15,383	12,831	9,495	1,760	852
Dagwin	1,750	1,540	464	278	34	14	1,585	1,400	589	436	56	29
Zimmè	3,283	2,889	174	105	354	149	2,904	2,730	255	189	106	53
Mehaungthun	8,810	7,752	162	97	30	12	11,889	11,176	235	173	93	47
Maingpan	1,030	906	240	143	120	50	1,604	1,508	162	120	60	31
Mônpè	30	26	27	16	...	...	...	...	...	...	...	...
Maingtun	307	270	1	...	284	119	1,470	1,382	36	27	127	63
Upper Taungyin	...	...	..	...	...	...	...	...	...	...	...	...
Ningyan	396	348	349	209	49	20	1,761	1,655	70	51	28	14
Maukmè	...	...	...	...	..	...	532	500	45	33	4	3
Maingpu	..	...	...	...	...	...	164	154	36	27	42	22
Kyaingkan	...	...	...	...	...	...	119	112	...	.	3	2
GRAND TOTAL ...	94,368	82,988	20,268	12,152	8,986	3,773	88,856	83,435	21,599	15,953	5,867	2,655

Comparison of percentage of increase or decrease as compared with percentage of increase or decrease for the previous year		1889-90. Increase per cent.	1889-90. Decrease per cent.	1890-91. Increase per cent.	1890-91. Decrease per cent
Karenni	Full-sized	...	38	...	28
	Under-sized	7	...	...	36
	Stem pieces	...	21	...	6
Mehan	Full-sized	36	..	59	...
	Under sized	...	...	...	...
	Stem pieces	...	...	...	...
Kyaingtaung ...	Full-sized ...	31	...	11	...
	Under-sized ...	17	...	...	20
	Stem pieces	116	...	...	56
Mainglôngyi ...	Full-sized	...	42	7	...
	Under-sized	...	30	128	...
	Stem pieces	..	11	83	...
Thaungyin ...	Full-sized ...	72	...	..	14
	Under-sized ...	17	...	27	...
	Stem pieces	319	...	...	52
Dagwin	Full-sized	265	...	...	9
	Under-sized	...	26	27	...
	Stem pieces	...	11	65	..
Zimmè	Full-sized	...	24	..	12
	Under-sized	...	49	47	...
	Stem pieces	42	...	...	70
Mehaungthun ...	Full-sized	12	...	35	...
	Under-sized	...	45	45	...
	Stem pieces	...	42	210	...
Maingpan... ...	Full-sized	...	...	56	.
	Under-sized	...	...	...	32
	Stem pieces	...	...	...	50
Not worked in 1890-91.					
Maingtun. ...	Full-sized	...	...	379	...
	Under-sized	...	...	3,500	...
	Stem pieces	...	...	...	55
Not worked in 1887-88 to 1890-91.					
Ningyan	Full-sized	...	...	345	
	Under-sized	...	...	...	80
	Stem pieces	...	...	...	43
Not worked in 1889-90.					

APPENDIX F.

Statement showing the Exports of Timber and other Forest Produce from the Port of Moulmein during the year 1890-91 (Private and Government).

Articles and countries to which exported.		Quantity.	Value.
WOOD—			Rs.
Teak—			
To United Kingdom	Cubic tons	6,451	6,90,266
" Germany, Bremen	"	18	2,093
" Spain, Gibraltar	"	1,360	1,32,978
" Malta	"	48	3,396
" Egypt, Port Said	"	2,114	2,11,471
" Mauritius	"	625	46,513
" Canada	"	...	...
" South America, Rio de Janeiro	"	...	...
" Cape Colony, Cape Town	"	397	30,174
" Ceylon	"	418	31,484
" Japan	"	...	...
" Straits Settlements	"	72	6,765
" Bengal, Calcutta	"	21,326	16,41,808
" Bengal, other ports	"	617	42,072
" Bombay, Bombay	"	20,797	13,26,013
" Madras, Madras	"	1,650	96,762
" Madras, other ports	"	6,337	3,20,744
" Provincial ports	"	567	38,205
" Pondicherry	"	1,421	80,600
	Total ...	64,227	47,01,434
Other timber—			
To France, Marseilles	Tons	9	279
" Germany, Hamburg	"	68	2,702
" Malta	"	35	1,680
" Egypt, Port Said	"	25	735
" Bengal, Calcutta	"	2,344	84,183
" Bombay, Bombay	"	347	15,016
" Madras, Madras	"	78	2,111
" Madras, other ports	"	271	8,367
" Provincial ports	"	1,459	50,813
" Pondicherry	"	58	2,209
	Total ...	4,694	1,68,095
Sandalwood—			
To Bengal, other ports	...	...	9
" Provincial ports	...	...	60
		...	69
Teak railway keys—			
To Bengal, Calcutta	Cwt.	895	1,252
" Bombay, Bombay	"	153	590
	Total ...	1,048	1,842
Wooden sleepers—			
To Bengal, Calcutta	Cwt.	6,409	12,363
" Bengal, other ports	"	889	1,290
" Madras, Madras	"	891	1,327
	Total ...	8,189	14,980
Manufactures of—			
To United Kingdom	...	...	20
" Malta	...	...	3,518
" Egypt, Port Said	...	...	1,523
" Mauritius	...	...	16,709
" Ceylon	...	...	423
" Japan	...	...	300
" Straits Settlements	...	...	23,061
" Bengal, Calcutta	...	...	82,058
" Bengal, other ports	...	...	30
" Bombay, Bombay	...	...	30
" Madras, other ports	...	...	327
" Provincial ports	...	...	39,665
" Pondicherry	...	...	1,345
	Total ...	...	1,68,409
LAC—			
Stick—			
To Provincial ports	Cwt.	5	112
OILS—			
Wood—			
To United Kingdom	Gallons	1,292	923
" Madras, Madras	"	20	65
" Other ports	"	494	445
" Provincial ports	"	72	60
	Total ...	1,878	1,493

APPENDIX G.

Summary of Revenue of the different Divisions of the Tenasserim Circle for the year 1890-91.

Budget heads—revenue.	Attaran.	Kado.	East Salween.	West Salween.	Tavoy.	Mergui.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—Timber and other Produce removed from the Forests by Government Agency—							
(a) Timber ...	34,497 13 1	11,569 6 4	1,76,065 11 0	38,266 15 11	4,664 1 9	.....	2,65,064 0 1
(b) Firewood and charcoal ...	.....	.....	.....	.....	.....	.....	.....
(c) Bamboos ...	.....	.....	.....	.....	.....	.....	.....
(d) Sandalwood ...	.....	.....	.....	.....	.....	.....	.....
(e) Grass and other minor produce ...	.....	.....	.....	.....	.....	.....	.....
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—							
(a) Timber ...	17,110 2 7	7,723 7 9	6,806 13 6	1,956 6 0	11,418 0 1	2,910 0 0	47,924 13 11
(b) Firewood and charcol ...	230 0 0	12 8 0	.....	.....	.....	12 8 0	255 0 0
(c) Bamboos ...	.....	.....	.....	.....	50 8 4	.....	50 8 4
(d) Grazing and fodder grass ...	.....	.....	.....	.....	.....	.....	.....
(e) Other minor produce ...	192 0 0	34 0 0	10 0 0	.....	886 0 0	1,022 0 0	2,144 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce ...	.....	59,459 7 0	.....	.....	626 3 10	144 13 2	60,230 8 0
IV.—Revenue from Forests not managed by Government—							
(a) Duty on foreign timber and other forest porduce ...	.....	1,85,539 5 0	.....	.....	.....	.....	1,85,539 5 0
(b) Revenue from shared and private forests ...	.....	.....	.....	.....	.....	.....	.....
V.—Miscellaneous—							
(a) Fines and forfeitures ...	45 0 0	3,448 0 0	100 0 0	15 0 0	303 0 0	27 0 0	3,938 0 0
(b) Refunds ...	198 8 10	6 0 0	68 6 0	.....	.....	.....	273 0 10
(c) Other sources ...	567 8 0	7,226 0 0	347 0 6	.....	368 0 0	421 0 0	8,929 8 6
Total Revenue ...	52,841 0 6	2,75,018 2 1	1,83,398 1 0	40,238 5 11	18,315 14 0	4,537 5 2	5,74,348 12 8

APPENDIX G.

Summary of Expenditure of the different Divisions of the Tenasserim Circle for the year 1890-91.

Budget head—expenditure.	Attaran.	Kado.	East Salween.	West Salween.	Tavoy.	Mergui.	Total.
A.—CONSERVANCY AND WORKS.							
I.—Timber and other Produce removed from the Forests by Government Agency—	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
(a) Timber	20,227 6 0	6,056 0 9	1,08,779 0 7	20,787 12 2	4,379 15 6	.....	1,60,230 3 0
(b) Firewood and charcoal	.....	.....	.....	.....	.....	.....	.....
(c) Bamboos	.....	.....	.....	.....	.....	.....	.....
(d) Sandalwood	.....	.....	.....	.....	.....	.....	.....
(e) Grass and other minor produce	.....	.....	.....	.....	.....	.....	.....
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers.	706 2 1	919 4 2	.....	.....	.....	.....	1,625 6
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	27,143 9 6	.....	.....	146 12 0	90 4 0	27,380 9 6
IV.—Revenue from Forests not managed by Government—							
(a) Duty on foreign timber and other forest produce	.....	6,687 2 7	.....	.....	.....	.....	6,687 2 7
(b) Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....
V.—Rent of Leased Forests and Payments to Shareholders in Forests managed by Government.	.....	.....	.....	.....	.....	.....	.....
VI.—Live-stock, Stores, Tools and Plants—							
(a) Purchase of cattle	.....	1,000 0 0	.....	.....	.....	.....	1,000 0 0
(b) Feed and keep of cattle	1,832 14 10	67 14 9	1,280 7 5	663 8 11	.....	.....	3,844 13 11
(c) Purchase of stores, tools and plant	425 4 8	174 2 0	506 3 9	220 6 8	6 12 0	1 4 0	1,304 1 1
VII.—Communications and Buildings—							
(a) Roads and bridges	.....	.....	.....	.....	.....	.....	.....
(b) Buildings	118 6 8	178 12 4	518 2 11	148 8 8	49 8 3	132 5 9	1,145 12 7
(c) Other works	1 10 8	.....	8 10 8	1 10 8	.....	.....	12 0 0
VIII.—Demarcation, Improvement and Extension of Forests—							
(a) Demarkation	.....	231 0 0	202 8 0	.....	57 10 0	26 0 0	517 2 0
(b) Compensation for lands and rights	.....	.....	.....	.....	.....	.....	.....
(c) Survey and working plans	28 0 0	.....	9,453 6 0	.....	.....	97 9 9	9,578 15 9
(d) Sowing and planting	1,237 14 10	.....	3,667 14 4	7,350 10 7	.....	1,212 14 6	13,459 6 3
(e) Protection from fire	1,030 3 6	.....	1,996 12 0	2,800 0 1	.....	.....	5,826 15 7
(f) Other	.....	.....	.....	.....	23 3 6	.....	23 3 6
IX.—Miscellaneous—							
(a) Refunds	.....	.....	.....	.....	.....	.....	.....
(b) Law charges	22 10 8	14 8 0	5 10 8	5 10 8	.....	.....	48 8 0
(c) Other charges	1,331 6 7	978 15 0	18 7 4	30 3 4	77 1 9	19 15 3	2,456 1 3
Total A.—Conservancy and Works	26,952 0 6	43,451 5 1	1,26,497 3 8	32,008 7 9	4,740 15 0	1,580 5 3	2,35,230 5 3
B.—ESTABLISHMENT.							
I.—Salaries—							
(a) Conservator	12,000 0 0	.....	.....	.....	.....	.....	12,000 0 0
(b) Superior officers	7,200 0 0	7,800 0 0	9,961 4 7	5,492 0 0	2,250 0 0	750 0 0	33,453 4 7
(c) Subordinate forest and depôt establishments	2,901 11 5	7,457 12 2	2,560 4 3	1,332 0 0	1,379 10 8	1,261 1 8	17,002 8 2
(d) Office establishment	6,535 15 7	5,903 6 0	1,296 7 5	1,221 12 0	1,249 3 7	316 5 8	16,523 2 3
(e) Deputation and special allowances	1,596 2 0	658 1 0	958 1 0	197 6 8	296 5 5	98 8 0	3,804 8 1
II.—Travelling Allowances—							
(a) Conservator	1,630 7 7	.....	.....	.....	.....	.....	1,630 7 7
(b) Superior officers	1,626 4 0	2,231 6 0	2,078 6 0	878 4 0	459 12 0	660 8 0	7,934 8 0
(c) Subordinate forest and depôt establishments	615 15 0	776 2 5	201 4 0	33 12 0	188 0 0	.....	1,815 1 5
(d) Office establishments	229 10 6	146 10 0	226 11 0	138 8 0	15 0 0	118 0 0	874 7 6
III.—Contingencies—							
(a) Stationery	.....	.....	.....	.....	.....	.....	.....
(b) Carriage of tents and records	95 0 0	38 8 0	157 0 0	38 8 0	.....	6 6 0	335 6 0
(c) Rents, rates, and taxes	12 14 3	24 12 9	12 14 3	12 14 3	.....	.....	63 7 6
(d) Pay of police guards	.....	.....	.....	.....	.....	.....	.....
(e) Official postage	105 12 4	123 8 0	29 2 4	19 12 4	22 8 0	15 6 0	306 1 0
(f) Sundries	402 3 2	68 5 6	114 7 2	80 9 4	40 12 0	14 2 0	720 7 2
Total B.—Establishments	35,041 15 10	25,228 7 10	17,605 14 0	9,445 6 7	5,901 3 8	3,240 5 4	96,463 5 3
Grand Total of all Expenditure	61,994 0 4	68,679 12 11	1,44,103 1 8	41,453 14 4	10,642 2 8	4,820 10 7	3,31,693 10 6

APPENDIX H.

TENASSERIM CIRCLE.

Statement of Timber entered during 1890-91. Name of Importers who have imported Timber from 1,000 logs upwards.

No.	Name.	Number of logs.
1	Ko Taw Aye	11,663
2	Ko Mo	11,324
3	Ko Lu Galè	6,946
4	Hajee Mahomed Usoof and Co.	6,117
5	Ko Tha Nyin	5,801
6	Kyaungtaga Kyè	5,517
7	Ko Kyaw La	3,045
8	Messrs. Aga Syed Abdul Hussain and Co.	2,958
9	Kyaungtaga Kyan	2,608
10	Ko Ôn	2,256
11	Ko Pôn	2,158
12	Messrs The Bombay Burma Trading Corporation, Limited	1,921
13	Ko Na Auk	1,903
14	Ko Kyè	1,658
15	Ko Pan	1,504
16	Mah Bwin	1,148

APPENDIX I.

TENASSERIM CIRCLE.

List showing the Names of the Principal Exporters of Teak from the 1st April 1890 to the 31st March 1891.

Name of firm.	Tons.	Remarks.
Messrs. Ferdinand, Foucar and Co.	9,576	There were in all 71,505 tons of timber shipped from this port by Government, petty shippers, chetties, &c.
Babu Bullub Dass	6,781	
Babu Bhugwan Dass	6,216	
Babu Meuraj Murlidhur	5,853	
Messrs. T. D. Findlay, Bodeker and Co.	5,176	
Messrs. The Bombay Burma Trading Corporation, Limited	4,948	
Gorudut Bhagla	3,671	
Messrs. Aga Syed Abdul Hussein and Co.	3,510	
Messrs. Haji Mahomed Usoof and Co.	2,517	
Messrs. Limouzin and Co.	2,089	
Messrs. Mirza Abdul Hussein and Co.	2,023	
Messrs. Steel Brothers and Co., Limited	1,418	

APPENDIX J.

TENASSERIM CIRCLE.

Statement showing the Sale Prices of Teak Timber at Home during each month of the official year 1890-91.

Month.	Sale price of timber per ton (average). From	Sale price of timber per ton (average). To	Freight per ton.	Remarks.
	£ s. d.	£ s. d.	s. d. s. d.	
April 1890				
May ,,				
June ,,				
July ,,				
August ,,				
September ,,	9 0 0	11 0 0	47 6 to 52 6	
October ,,				
November ,,				
December ,,				
January 1891				
February ,,				
March ,,				

APPENDIX J (1).

TENASSERIM CIRCLE.

Statement showing the Market Rate of Teak Timber in the Indian Market for the year 1890-91.

Month.	Bombay				Calcutta.				Remarks.
	Squares.		Scantlings.		Squares.		Scantlings		
	From	To	From	To	From	To	From	To	
	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
April 1890									
May "									
June "									
July "									
August "									
September "	55	70	68	80	65	80	70	90	
October "									
November "									
December "									
January 1891									
February "									
March "									

APPENDIX K.

PEGU CIRCLE

Selling Rates in the Home Market for 1890-91,—Churchill and Sims.

	£ s. d.		£ s. d.
April 1890	11 0 0	to	15 0 0
May "	11 0 0	to	15 0 0
June "	11 0 0	to	15 0 0
July "	11 0 0	to	15 0 0
August "	8 10 0	to	14 0 0
September "	8 10 0	to	14 0 0
October "	8 10 0	to	14 0 0
November "	8 10 0	to	14 0 0
December "	8 10 0	to	14 0 0
January 1891	8 10 0	to	14 0 0
February "	8 10 0	to	14 0 0
March "	8 10 0	to	14 0 0

APPENDIX L.

PEGU CIRCLE.

Annual Return of Jungle Woods and Bamboos passed at the Government Timber Depôt and Pazundaung Revenue Station from 1st April 1890 to 31st March 1891.

Description of timber.		Logs.	Total.	Remarks.
Logs ...	In	858		Sold in the market at Rs. A. P. 14 4 3
	Pyinkado	651		Ditto 8 6 8
	Taukyan	90		Ditto 12 0 0 per log.
	Thayet	289		Ditto 8 10 5
	Firewood	438	2,326	Ditto 0 13 0
Bamboos	Myin	1,022,000		Sold in the market at Rs. A. P. 113 2 5 to Rs. A. P. 167 10 7
	Kyathaung	260,000		Ditto 235 15 7 to 316 2 5
	Tin	98,200		Ditto 206 14 9 to 307 15 1 per ton.
	Talagu	7,500	1,388,300	Ditto 426 10 8 to 500 0 0
	GRAND TOTAL ...	...	1,390,626	

APPENDIX M.

PEGU CIRCLE.

Average Rates realized at the Rangoon Government Timber Depôt during 1890-91.

	Rs. P. A.	
April 1890	39 12 7	
May "	32 9 1	
June "	30 6 0	
July "	28 13 7	
August "	28 14 8	
September "	36 10 11	
October "	34 15 7	per ton.
November "	35 9 9	
December "	37 10 8	
January 1891	42 10 1	
February "	42 10 1	
March "	42 11 8	

APPENDIX N.—PEGU CIRCLE.

Division.	Balance on 1st April 1890. Logs.				Arrivals during the year. Logs and scantlings.				Sales and disposals during the year. Logs and scantlings.				Balance on 31st March 1891. Logs.			
	Teak.	Teak drift.	Other woods.	Other woods, drift.	Teak.	Teak drift.	Other woods.	Other woods, drift.	Teak.	Teak drift.	Other woo.	Other woods, drift.	Teak.	Teak drift.	Other woods.	Other woods, drift.
Thayetmyo	448	...	...	...	816	...	...	...	1,264	...	...	...	...	...	...	...
Prome	1,367	...	...	...	2,637	...	...	...	2,587	...	...	...	1,417	...	...	...
Tharrawaddy	14,729	...	1	...	13,178	...	...	...	14,837	...	1	...	13,070	...	...	...
Rangoon	5,622	11	...	...	5,212	478	130	1	5,493	489	75	2	5,341	...	55	...
Toungoo	3,611	...	...	...	5,125	...	50	...	5,915	...	50	...	2,821	...	...	...
Shwegyin	556	...	...	...	...	...	...	...	556	...	...	...	...	...	...	...
Western	...	15	...	...	...	54	...	...	...	69	...	...	...	...	...	...
Agency	42*	244	...	3	...	739	...	4	...	869	...	6†	42*	114	...	...
Total ...	26,375	270	1	3	26,968	1,271	180	5	30,652	1,427	126	8	22,691	114	55	...

* Teak sleepers. | † Three confiscated.

APPENDIX P.

PEGU CIRCLE.

Statement showing proposed Plan of Operations and Work effected.

Division.	Operations.	
	Proposed.	Carried out.
THAYETMYO ...	Girdling of 1,200 teak trees	1,200 girdled (430 undersized).
	Eight hundred and fifty teak logs to be extracted by Government agency.	1,680 logs extracted.
	Reserve boundary-marks to be repaired	No repairs required.
	Sixty acres teak and cutch plantations to be made in Tindaw and Thayetmyo, East Yoma reserve.	114 acres planted.
	Weeding old teak and cutch plantations	Carried out.
	Fire-protection of Tindaw reserve	Ditto.
	Improvement of Tindaw reserve by *eclaircie*	Creepers on teak cut, and teak freed from dormitory trees and bamboos.
PROME	Girdling of 500 teak trees	500 girdled.
	Extraction of teak logs as last year by Government agency.	3,380 extracted (?).
	Taungya plantations to be weeded	Carried out over 1,200 acres
	Clearing and improving teak patches outside plantations...	Not reported on.
	Demarcation of paddy-field clumps of teak	Ditto.
	Plantations to be made in Bwet reserve	In all 319 acres ya planted up.
	Plantations to be fire-protected as usual	Carried out.
THARRAWADDY ...	Girdling of 6,561 teak trees	4,052 girdled.
	Extraction of 18,000 teak logs	15,551 extracted.
	Three new rest-houses to be erected	Done.
	Streams to be cleared where necessary	A blasting party employed.
	Repairs to boundaries where necessary	Done.
	Re-demarcating outlying reserves	Do.
	Teak taungyas to be inserted in map	Done roughly.
	One thousand and one hundred acres of teak taungyas to be planted	807 acres planted.
	Sowing to be made in flowered bamboos in Kôn-Bilin ...	Done.
	Plantations to be weeded	Done as far as labour was available.
	Fire-protection to be extended	Done.
	Thônzè and Kôn-Bilin traces to be extended	Do.
	Works of improvement in girdling areas	Do.
	Maintenance of forest garden	Maintained.
RANGOON	Girdling of 1,000 teak trees	1,000 girdled (38 attacked by *ficus* also felled).
	Five thousand seven hundred and fifty teak logs to be extracted by Government agency.	4,496 extracted.
	Opening out permanent path from Ôkkan to Zamyi ...	Not done; bad water-supply after February.
	Buildings,—usual repairs	Carried out.
	Tours of inspection...	Ditto.
	Settlement of proposed reserves	No Civil Officer available.
	Examination of Pyinbôngyi forest for fuel reserve ...	Examined.
	Hlaing-Paunglin reserve boundaries to be revised ...	Revised.
	Fire-protection continued	Carried out.
TOUNGOO ...	Girdling of 10,000 teak trees	7,497 girdled up to end of year.
	Extraction of 6,950 teak logs by Government agency ...	5,127 teak logs extracted.
	Extraction of 250 other logs by Government agency ...	50 logs, other kinds, extracted.
	Repairs to Forest Bungalow Toungoo	Being executed.
	Demarcation	Carried out
	Fire-protection	Ditto.
	Weeding and clearing	Carried out over 576 acres.
	Proposed reserves	Not yet carried out owing to Mr. Hoghton's absence.
	Teak taungyas	Carried out.
	Improvement fellings	Ditto.
SHWEGYIN	Girdling of 1,000 teak trees	1,000 girdled.
	Extraction of 1,500, teak trees	514 felled, but timber all caught by Baungda obstructions.
	River-drift teak 3,500, other 30	Collected teak 5,417, other 60.
	Sea-drift teak 30, other 10	Collected teak 32, other one.
	Weeding 6¼ acres Kyuntaung reserve	Carried out.
	Repairs to boundaries to reserve	Not reported on.
	Examination of forest between Yenwè and Baungda chaungs with a view to reservation.	Examined 380 square miles (about) proposed for reservation.
	Fire-protection, Kyuntaung reserve	Plantation protected.
WESTERN	Annual plan as proposed	Carried out.

APPENDIX O.

From T. A. HAUXWELL, Esq., Deputy Conservator of Forests, in charge, Tenasserim Forest Survey, to the Superintendent of Forest Surveys, Dehra Dun,—No. 81F.S., dated Kawkareik, the 5th May 1891.

IN accordance with your No. 55, dated the 26th February 1891, I have the honour to submit herewith a report on the field season of 1890-91.

Traversing.

The following table shows the dates of commencement and completion and amount of work done by the traverse parties :—

Party No.	Date of commencing work.	Date of completion of work.	Number of miles traversed approximately.
1	1st January 1891 ...	9th March 1891	34½
2	1st January 1891 ...	18th March 1891 ...	40½
3	8th January 1891 ...	10th March 1891 ...	26½
4	16th January 1891 ...	2nd April 1891	30½
			Total ... 132

The slight delay in commencing work by Parties Nos. 3 and 4 was due to the difficulty in obtaining coolies, no intimation having been received beforehand of the requirements. However, from the above dates no further delay was experienced in any way and work progressed steadily, but it must be borne in mind that this season the survey worked under certain advantages, in so far that over the area surveyed there was a forest cooly establishment employed in fire-trace work, so that any survey cooly falling sick could without delay be replaced from the Forest establishment. This will not be the case next season as in the area to be traversed there are no forest works going on from which coolies can be drafted, and the Survey will have to rely entirely on the men recruited for that purpose.

Triangulation.

One party only was employed on this work, commencing on the 24th December and closing work on the 31st March. No work was really done after 1st March on account of the heat and haze, and it is evident that triangulation work in Burma must be completed by the 1st March.

The area fully triangulated over is estimated at 80 square miles, some 30 square miles more were partly done, and 20 remain to be worked over next season in the block taken in hand this year in addition to connecting the area surveyed with the Great trigonometrical stations near Moulmein.

The writer of this report was put in charge of the work from the 17th December, but resumed charge of his duties as Divisional Officer, East Salween division, in addition to the survey work, on the 21st March 1891. Owing to the desertion of the Forest Ranger his time was occupied in supervising the cutting of traverse lines and the supply of provisions to the different camps.

The health of the establishment remained good till about the middle of February, when the men began to suffer from fever, but not so badly as to stop work. By the time they returned to India all had fever in some degree and one khalassi died.

I have the honour to forward the following suggestions for your consideration with respect to the equipment of the Survey Party next field season.

Transport and supplies.

It proved impossible, with provisions at one base depôt this year, for the camps to supply themselves periodically with rations from that depôt owing to the time occupied in going and returning and delaying the work, in consequence of which rations were sent by hired elephants to the different camps. This system will have to be pursued next season, and in consequence I would suggest the purchase of elephants for the purpose, four in number—two for the plane-table camps in Mèplè and two for the traverse parties which will be working south of Myawadi. For next season only possibly one elephant might suffice for the latter as three provision depôts can be established, but after that two will most certainly be required. In addition to the above a fifth elephant will be required as this year to be permanetly attached to the triangulation, and in the event of an officer of the Survey Branch being sent to supervise the plane-tabling another elephant will be required for his use.

Stores.

In the event of the Traverse khalassis being as this year partly Natives of India and partly Shans, the present "shouldaries" are inconvenient and cumbersome, the Shan coolies objecting to carry them as they have no use out of them, and I would suggest that the present "shouldaries" be made over to the Plane-table parties (who do not shift camp so frequently) and in their

place the Traverse parties supplied with a drill sheet, say, 16′ × 8′, which can be thrown over a ridge pole cut locally, tent poles not being required, as per sketch.

I have spoken to the men employed this year, and they consider that the above plan is quite suitable and much less cumbersome.

Labour.

With regard to the traverse work, the system of mixed labour, Natives and khalassis, seemed to work satisfactorily and might be continued next season, but the Triangulation Party, with the exception of the Interpreters, should be composed entirely of Natives, "Paharis" by preference, as the Shans employed this year say the work, *i.e.*, flagging and hill-clearing, is too hard, and it will be impossible to recruit men for the purpose. In any case I would ask you to be good enough to furnish me with information of the probable strength of next season's party and your requirements with regard to local labour in order that men may be recruited in time to meet the party from India; one to two months' notice at least will be required.

Plane-table work.

The traversers employed this year estimate that in the forests here a party would do about half the work they would in India, *i.e.*, 2 square miles per mensem of complete work including contour lines but, if the latter are not required, probably 3 square miles would be completed. The area traversed being estimated at 130 square miles, to complete the work in one season will require a larger party; work should, however, be pushed on and completed over the northern areas traversed by Singher Sing and Dhulip Sing owing to the difficulties of communication and supplies. In any case if the plane-tabling cannot keep up with the traversers, a more permanent system of traverse posts must be adopted, at all events for inner lines for outer boundaries. Four permanent pillars to the mile are being put down *on* Traverse stations as boundary marks by the Forest department, but this will not be done on inner lines, and owing to the very heavy rainfall here and the soft woods which often have to be used for posts the posts will certainly not last more than two seasons and that only with supervision and repairs.

References have been made to the shortness of the chain lines, which it is hoped may to a certain extent be remedied next year in the line-cutting, but it must be remembered that the boundary lines of reserves here were laid down without any available maps and as boundaries any natural features, such as paths, ridges, watercourses, were selected and boards nailed to trees at certain intervals. Under these circumstances the boundary lines are very crooked, and to cut long straight lines for the Traverse parties one year and next year having to clear along the actual curved boundary for the plane-tables next would entail heavy expenditure which at present falls entirely on the Forest department and not on the Survey.

Remittance of treasure.

As this matter forms the subject of a separate letter no remarks are necessary.

Employment of local surveyors.

It was not found possible to enlist the services of Burmans for survey work as none were found who could survey with a theodolite, and any who might be taught would not work for the salaries paid to men recruited in India, any Burman with a fair knowledge of surveying asking at least Rs. 50 per month.

Comparative statement of Government auction sale of teak timber, 1889-90 and 1890-91.

Date of auction, 1889-90.	Timber sold. Logs.	Timber sold. Estimated tons.	Amount realized.	Date of auction, 1890-91.	Timber sold. Logs.	Timber sold. Estimated tons.	Amount realized.
			Rs. A. P.				Rs. A. P.
8th June 1889	2,256	1,531	52,603 0 0	28th June 1890	525	225	3,176 0 0
3rd August 1889	2,856	1,528	52,536 12 0	16th August 1890	2,537	1,153	23,912 0 0
21st September 1889 ...	2,623	1,801	54,007 0 0	20th September 1890 ...	3,212	1,964	32,225 0 0
26th October 1889	5,544	1,671	49,219 0 0	25th October 1890	2,059	1,084	18,462 0 0
23rd November 1889 ...	2,189	884	25,439 12 0	29th November 1890 ...	2,200	868	16,907 8 0
21st December 1889 ...	3,181	1,725	40,204 8 0	10th January 1891 ...	2,595	1,106	22,373 0 0
1st February 1890	3,295	2,387	53,593 14 0	7th February 1891 ...	271	148	2,266 8 0
8th March 1890	3,833	2,226	52,354 4 0	14th February 1891 ...	2,798	1,269	23,380 8 0
15th March 1890	1,714	682	15,516 4 0	7th March 1891	2,657	1,620	21,483 4 0
				21st March 1891	1,398	817	13,339 8 0
Total ...	27,491	14,435	3,95,474 6 0	Total ...	20,252	10,254	1,77,525 4 0

	1889-90. Rs. A. P.		1890-91. Rs. A. P.
Average rate per log ...	14 6 0	Average rate per log ...	8 12 3
Average rate per ton ...	27 6 0	Average rate per ton ...	17 5 0

Remarks by Colonel G. A. STROVER, Commissioner of the Pegu Division, on the Annual Report of the Prome Division for the year 1890-91.

THE financial results of the working of this division for the year show a surplus of Rs. 52,668-5-8. The total receipts were Rs. 94,706-14-2 and the expenditure Rs. 42,038-8-6. A comparison between the revenue and expenditure as compared with the previous year is not given, such being impracticable for statistical purposes as the Paungdè sub-division was transferred from the Tharrawaddy to the Prome division during the year.

The Forest division is now nearly identical with the civil district consequent on the transfer of the Shwèlo range and the tracts containing the Tayokmaw reserve. No new reserves were proposed or taken up during the year. The area of reserved forests is 348 square miles including 55 square miles of Karen areas. Planting operations extended to 319 acres of new taungyas. There were 18 cases of offences against the Forest Law, resulting in 17 convictions. This shows a large decrease on the previous year, when there were 41 cases and 38 convictions. The number of cases compounded was 221 against 143 in the year 1889-90, and 260 men were fined, amounts aggregating Rs. 3,577. The number of cases compounded has largely increased, though the number of cases prosecuted in Court has largely diminished. It is reported that there would probably have been more cases prosecuted if the Assistant Conservator of Forests had not been transferred from Paungdè at the end of November 1890 and if there had been a Forest ranger for the Shwèlo range from August 1890 to the end of February 1891. The majority of cases compounded were for cutting or killing teak in taungyas. The system of allowing cases to be compounded doubtless has its convenient points, but it is a system which should be carefully watched and supervised by the Deputy Conservator himself and not be left too much to the action of irresponsible subordinate officers of the department.

No cutch licenses were granted outside reserved forests, except in the forests to the north of the North Nawin stream and in the Padaung township, also a few between the Burmese Minlan and the Railway line. Apparently 233 cauldron licenses at Rs. 20 each were issued during the year; of these one Maung Nauk had 65 licenses to work cutch trees already felled and lying in the forests. But it was found necessary before the close of the year to cancel 53 of the licenses because the workmen persisted in cutting fresh trees to the indignation no doubt of Maung Nauk. Each cauldron produces 1,000 viss of cutch a year. It would be interesting to know the average number of trees necessary to secure this production. An approximate estimate of the percentage of denudation might be arrived at in forest areas if such details were given. They are, however, probably known to the officers of the Forest department. Charcoal was produced somewhat extensively, and the extract of fibre, thatch, cigar-leaves, bamboos, and wood-oil was considerable. Girdling operations were limited during the year. The work of forest administration appears to have been satisfactorily conducted throughout the period of review. The work of reproduction by natural and artificial means has received due attention. I have no other remarks to make.

From Lieutenant F. D. MAXWELL, Deputy Commissioner, Tharrawaddy, to the Commissioner of the Pegu Division,—No. 650-6—6, dated the 5th May 1891.

IN forwarding the Annual Report of the Forest Administration of the District for the past official year, I have the honour to make the following remarks:

2. The revenue and expenditure for the past three years is as follows:—

	1888-89.	1889-90.	1890-91.
	Rs.	Rs.	Rs.
Revenue	8,12,259	10,54,441	7,95,786
Expenditure	3,19,399	4,10,639	2,26,222
Surplus ...	4,92,860	6,43,802	5,69,563

The percentage expenditure of revenue for these three years is as follows roughly:—

1888-89.	1889-90.	1890-91.
Per cent.	Per cent.	Per cent.
30	39	29

3. Paragraph 18 of the report shows that 203 heads of cattle were grazed in four reserves and a revenue of Rs. 91-4-0 was realized; of the four reserves three—the Thindawyo, Sitkwin, and Satpôk—are fuel reserves, and one of the three—Sitkwin—is now being deforested. At the time of settlement Mr. Adamson, the Settlement Officer, drew attention to these fees and recommended their abolition on, I think, the following grounds:—

(a) that the tax was unsuited to the people and against their traditions;
(b) and opened a door to extortion by petty forest officials;
(c) that it was an oppresive tax as cattle do little or no harm in reserves (more especially timber reserves).

I have tried to trace the result of the Settlement Officer's recommendation, but can find nothing in my office on the subject; but I would again draw attention to the subject. Cattle do no harm in grazing in reserves and, if they do, this petty tax cannot possibly cover the cost of damage caused. There can be little doubt but that the Burman has an intense dislike of petty taxation of this sort; it irritates him and, when it is remembered that the very existence of forests depends on the goodwill of the people, for reserves could be fired wholesale with absolutely no danger of detection, I would ask is it politic in connection with this subject? I would draw attention to the revenue derived from minor forest produce (see paragraph 46): Rs. 28 was collected from thatch; Rs. 10 from a fishing license; Rs. 5 from honey; Rs. 101 from cheroot leaves. Many fires in the reserves of this district in recent years have been the work of incendiaries. Forest Officers are no doubt put in very invidious positions on many occasions and have to make enemies by prosecuting offenders or compounding offences. It is essential that forest administration should be carried on with the least possible friction, and I would therefore suggest that some of these petty sources of revenue might with advantage be abolished.

4. Paragraph 48 of the report shows that the following licenses to boil cutch were granted:—

Eight at Rs. 100 per cauldron; | One hundred and fifteen at Rs. 226 per cauldron;
Twelve at Rs. 150 per cauldron;

or an average of Rs. 212 per cauldron. All the above were apparently inside reserves, though it is not so expressly stated. In paragraph 49 cutch from unreserved forests is stated to have yielded a revenue of Rs. 2,760. The revenue is, I think, Rs. 20 per cauldron, so that 138 cauldrons are working outside reserves. According to the calculations laid down in paragraph 52 of the report each cauldron pays inside reserves Rs. 212 revenue on an outturn of Rs. 1,850 (putting cutch at Rs. 50 per 100 viss), or about 11 per cent.

Outside reserves the revenue is Rs. 20 on Rs. 175 on the same percentage. This is as it should be. It, however, seems difficult to understand why a cutch cauldron inside reserves yields more than eleven and a half times as much as a cauldron outside. The unreserved parts of this district can hardly be so entirely denuded of cutch trees as this calculation would lead one to believe. The cost of cutch manufacture has not been calculated. It is therefore impossible to say whether the prices fixed by license are reasonable or not.

5. Planting of teak continues year by year. I recently made a tour through many of the plantations. Payment for sowing is usually liberal and appreciated by the ya-cutters. The time, however, is not far distant when most of the cultivable land in reserves will be exhausted and the disposal of the ya-cutters will be a difficult problem. It would be well perhaps to keep whole kwins where possible for these people.

The rest of the report appears to be on matters professional, departmental, or financial, over which I have no control or responsibility.

Remarks by Colonel G. A. STROVER, Commissioner of the Pegu Division, on the Annual Report of the Forest Administration of the Tharrawaddy Division for 1890-91,—No. 155-5F.D., dated the 7th May 1891.

THIS report has for the first time in forest administration been submitted by the Deputy Conservator of Forests through the Deputy Commissioner, in compliance with the orders of the Chief Commissioner in the Forest Department No. 80, dated the 20th April 1891. The revenue shows a large falling off ascompared with the year 1889-90, while on the other hand the expenditure has decreased by about 48 per cent. The decrease under head I*a* is considerable, or Rs. 1,60,364. This appears to be due to smaller sales of paddy-field teak. The falling off in cutch licenses is marked. There were also no sales of cutch trees from reserves. Cutch licenses realized an average of Rs. 212 per cauldron, the number disposed of being 135. The licenses extended to 14 reserves, and the total sum realized under this head was Rs. 28,635. The large disproportion between the yield of cauldrons inside and outside of reserves is noticeable. It may be taken, however, that the unreserved parts of the district have been very considerably denuded of cutch trees.

The chief offences against the forest law were in connection with teak. A large number of cases were compounded by the Divisional Officer for the sum of Rs. 3,812-15-0.

During the year the damage caused by forest fires was insignificant. It is certainly somewhat of an anomaly to find that natural regeneration is much better outside than inside fire-protected areas. The fact remains nevertheless that when fire has swept its course, clearing all undergrowth and small plants before it, there will be found as a general rule the greatest energy in regeneration. This no doubt is due in a great extent to the chemical action of the burnt material.

The Deputy Commissioner remarks on the fees charged for grazing cattle in reserves. The total sum realized was Rs. 91-4-0. This is a very small item, and I am inclined to agree with the Deputy Commissioner that these fees might well be abolished without detriment to the finances of the department, or to the forests. The amount realized does not compensate the Government for the ill-effects caused by levying the fees. In the matter of minor forest produce as well the items of thatch and honey might be excluded from revenue

and also perhaps cheroot leaves. These petty restrictions, which hamper the poorer classes of the rural population on every side, undoubtedly have a tendency to divert doubtful characters from pursuing an honest mode of livelihood. The work of the department in all its branches appears to have been efficiently carried on during the year by Messrs. Carter and Corbett. Much good work in the matter of planting out has been done.

Remarks by Colonel G. A. STROVER, Commissioner of the Pegu Division, on the Annual Report on the Forest Administration of the Rangoon Division for the year 1890-91.

THE financial results of the year show a surplus of Rs. 1,33,581.

Planting operations appear to have been fairly successful, especially in taungyas, where 223,368 teak plants have survived. The number of offences against the Forest Law was small; the amount realized by cases being compromised was Rs. 273-8 0. Fees on account of grazing amounted to Rs. 161-4-0. This is an insignificant sum. The mortality amongest the mahogany trees is noticeable, 25 having died during the year. The year appears to have been unfavourable for the extraction of timber.

Remarks by Lieutenant-Colonel C. B. COOKE, Commissioner of the Tenasserim Division, on the Report of the Forest Administration of the Toungoo Division for the year 1890-91,—dated the 19th May 1891.

General remarks.

1. This report has the disadvantage of having been written by an officer who was not in charge of the division during any part of the year to which it relates.

Area of reserved forests.

2. The area of reserved forests is still returned as 870 square miles; this is incorrect. The reservation of the following forests was sanctioned during 1890-91 :—

		Sq. miles.
(1) Saing Forest extension (Notification No. 58, dated the 16th April 1890)	...800 acres =	·47 (app.)
(2) Nyaungkyidauk (Notification No. 17, dated the 21st January 1891)	... ...	3·50
(3) Kyungôn (Notification No. 18, dated the 21st January 1891)	... ...	4 00
(4) Kanyutkwin (Notification No. 19, dated the 21st January 1891)	... ...	20·00
Total	..	27·97

This brings the reserved area up to nearly 900 square miles.

Proposed reserves.

3. A proposal to form a fuel and fodder reserve of 8 square miles at Swa was abandoned as it was found to interfere much with cultivation. The proposed reservation of two teak tracts, to be called respectively the Chaungmagnè and Yetkansin reserves, is still pending the report of the Forest Settlement Officer. A preliminary enquiry by the Township Officer shows that the area of the Chaungmagnè reserve is more nearly 50 square miles than 25 and includes several valuable betel-palm gardens, the acquisition of which will be costly. In the Yetkanzin reserve there are the permanent holdings of 15 cultivators, which will have to be acquired. This reserve is practically a further extension of the Saingyanè reserve and has an estimated area of 12 square miles.

Survey.

4. The survey of the Kabaung reserve and of the boundaries of the Pyu and Bondaung reserves has been undertaken during the past season by a party of the Survey of India, but the results of the season's work are not yet known.

Offences against Forest Rules.

5. Two cases of breaches of the Forest laws were brought to trial, and in both cases convictions were obtained. Twenty cases were compounded and compensation received to the amount of Rs. 193-8-0. The offences were principally for the illicit manufacture of cutch in unreserved forests. The number of prosecutions seems very small.

Reproduction.

6. The area of plantations is returned as 775 acres, on which nothing was expended during the year. The area of teak and cutch taungyas was apparently 624 acres (the Forest Officer's figures do not agree with those given at page xiv of the Appendices to last year's printed report). The total expenditure is shown as Rs. 1,563. The 14 yas in the Saing Yanè reserve are very favourably reported upon and are said to have 1,200 seedlings to the acre, the average cost being Rs. 14 per acre.

Exotics.

7. The Toungoo climate apparently does not suit exotics. Of 34 mahogany plants 22 only were alive at the end of the year.

Timber worked out of the forests.

8. There were 4,852 teak logs extracted by departmental agency during the year. The contract system referred to in last year's report was continued, and Messrs. Macgregor and Co. extracted 1,247 teak logs at Rs. 21 per ton from the Swa reserve. The total quantity extracted by purchasers was 956,133 cubic feet as against 396,996 cubic feet in 1889-90. This is a

very considerable increase, on which the Forest Officer offers no comment. The free grants of teak for religious and other purposes amounted to 3,350 cubic feet as against 1,350 cubic feet during the previous year. The outturn of timber other than teak is given in detail in the Divisional Officer's report, and appears to call for no special comment.

Minor forest produce.

9. The revenue realized under the head of "Minor Forest Produce," if collected by the Forest Officers, is credited as forest revenue, but, if collected in the terms of section 40 of the Burma Land and Revenue Act and Chapter XX of the Rules thereunder, it appears as a sub-head of Land Revenue. This matter has attracted the Chief Commissioner's attention, and doubtless orders on the subject will be issued shortly. All such revenue should, I think, appear as forest revenue, whether it is collected by the Deputy Commissioner or by the Forest Officer. The revenue realized under this head as shown in the report was Rs. 1,714-7-0, of which Rs. 600 was on account of licenses to manufacture cutch and Rs. 740 on account of licenses to extract thitsè and kanyin oil.

Drift operations.

10. The drift operations show a net profit in favour of the department of Rs. 9,025, and 155 unclaimed teak logs had been collected at the depôt and were still unsold; these are valued at Rs. 1,155.

Girdling operations.

11. The girdling of 9,650 trees was sanctioned, but only 7,974 trees have been girdled during the year. This is attributed to the illness of the Assistant Conservator, who was unable to proceed with the work.

Financial results.

12. The Financial results are given in detail in the Forest Officer's report, but they are in such a very technical form as to be unintelligible to any one outside the Forest department. However, the figures show a surplus of revenue over expenditure, amounting to Rs. 5,43,109-12-9, or an increase of Rs. 48,580 over the net profits of the previous year. The figures relating to expenditure do not appear to include the cost of the Survey Party, which is a considerable item and will materially reduce the above surplus.

Remarks by Lieutenant-Colonel C. B. Cooke, Commissioner of the Tenasserim Division, on the Report on the Forest Administration of the Shwegyin Division for the year 1890-91,—dated the 21st May 1891.

Area of reserved forests.

1. The area of reserved forests remained unchanged and is returned as approximately 445 square miles.

Proposed reserves.

2. No proposals for additional reserves were made during the year or are pending from previous years. Proposals for taking up six new reserved tracts of an aggregate area of 380 square miles are said to be in course of preparation.

Breaches of the Forest laws.

3. Two prosecutions were instituted departmentally and convictions obtained in both cases. A charge preferred by the Bombay Burma Trading Corporation against a peon in their employ resulted in an acquittal, but the District Magistrate thinks the prosecution was fully justified. Four offences against the Forest laws were compounded and compensation, aggregating Rs. 108, was received. In this division also the number of prosecutions for such offences seems very small and indicates a want of activity on the part of the subordinate forest officials.

Yield and working of teak.

4. No timber was extracted during the year by Government agency. Of 1,500 teak trees girdled on the Baingdachaung not a log was extracted. The number of teak logs worked out during the year was apparently 2,026, measuring 1,305 tons, of which 722 logs were extracted by Messrs. Macgregor and Co. from the Kunchaung forests at Rs. 22-8-0 per ton and 1,266 logs under permits at various rates. There appears to be a mistake in paragraph 25 of the report, which renders it impossible to say what revenue was derived from teak.

Other sources of revenue.

5. The revenue derived from reserved timber, principally kanyin, was 11,119 as against Rs. 3,258 in the previous year, and that from unreserved timber Rs. 14,553 as against Rs. 15,458 in 1889-90. The items under Minor forest produce call for no remarks beyond those previously recorded on the Toungoo divisional report.

Financial results.

6. The financial results of the year's operations are less satisfactory than those of 1889-90. The receipts have fallen from Rs. 75,252 to Rs. 57,073, and at the same time the expenditure has decreased from Rs. 26,267 to Rs. 17,064. The surplus or balance in favour of the division is Rs. 40,009 as against Rs. 48,985 in the previous year. The Deputy Conservator attributes this unfavourable result to the obstructions in the Baingda and Yenwè streams, which retarded the operations of the contractors who had undertaken to work out girdled teak. These obstructions are said to be fishery weirs as there are no leased fisheries in these streams, the weirs are unauthorized and those who have put them up are liable to prosecution. As the Deputy Commissioner remarks, it is probable that these weirs consist chiefly of drift timber and snags, and such obstructions should be removed departmentally.

Remarks by D. WILSON, Esq., Officiating Deputy Commissioner, Shwegyin, on the Deputy Conservator of Forests' Annual Report,—No. 783-9. [Received 12th May 1891. Forwarded 14th May 1891, to the Conservator of Forests, Pegu Circle.]

Two matters call for remarks.

(1) The prosecution of Abbas Ali, Revenue peon (see "General Protection and Breaches of Forest Law"), ended in an acquittal.

But there was grave reason to suspect him and the prosecution was fully justified. There was morally little doubt that he connived at the theft of two Bombay Burma Corporation logs.

He may be a useful informer against the mill-owners. But it is a case of diamond cut diamond, and he should not be trusted farther than he can be seen.

(2) The "fisheries" seem to be a kind of bugbear to the Deputy Conservator of Forests. How far his remarks are justified by the facts I cannot yet undertake to say precisely. But two things must be mentioned. There appears to be *no* leased fisheries on the Baingda and Yenwe chaungs: and the "obstructions" are described to me by Mr. Blackwell himself as consisting largely of *drift* trees, logs, &c. I suspect we may find that it is *unlicensed obstructions* for fishing purposes that damage the drainage of the country, so far as it is damaged for fishing purposes. Enquiries are pending.

From Major C. A. CRESSWELL, Deputy Commissioner, Prome, to the Conservator of Forests, Pegu Circle (through the Commissioner of the Pegu Division),—No. 18-5, dated the 16th June 1891.

I HAVE the honour to forward herewith the Fire-protection Report for 1891 from the Deputy Conservator of Forests, with the remark that I shall hope next cold weather to go round these reserves with the Deputy Conservator and the villagers will be called up and warned. Possibly they may have some grievances, which I shall also enquire into.

Under the Burma Village Act I will, after consultation with the Deputy Conservator, order under section 14 (1) (*b*) an enquiry into these cases.

Endorsement by Colonel G. A. STROVER, Commissioner of the Pegu Division,—No. 379, dated the 17th June 1891.

FORWARDED to the Conservator of Forests, Pegu Circle, with copy of Deputy Commissioner's letter. The year of report appears to have been inimical to fire-protection. The area of fire-traced forest ravaged by fire was approximately 10,000 acres. The cost of protective measures increased considerably. The former plan of tracing round a protected area and then firing the surrounding forest is, I should say, more effective than the plan adopted in the past year. But the firing of surrounding forests should be carried out in blocks, and the fire should be kept under control and be extinguished (if possible) after it has cleared 500 or 600 feet of jungle round the trace. A fire in high grass cannot well be controlled, but ordinarily it is quite practicable to stop a fire making way through dead leaves and short grass.

From Lieutenant F. D. MAXWELL, Deputy Commissioner, Tharrawaddy, to the Commissioner of the Pegu Division,—No. 883-1—71, dated the 10th June 1891.

I HAVE the honour to forward herewith a report on fire-protection in the Tharrawaddy division during the dry season of 1891 by the Deputy Conservator of Forests.

2. The general results may be stated as follows: An attempt was made to protect 62,454 acres, of this 9,655 acres were burnt and 52,799 acres, or 84·5 per cent. of the area attempted, were actually protected. The cost of protecting the 52,799 acres was Rs. 6,675, or 2·02 annas per acre.

In view of this large expenditure, unsuccessful results, and charges of incendiarism, it might be well to consider whether there are other means whereby the large areas of valuable plantations annually burnt might be saved.

From Captain T. G. JOHNSON, Deputy Commissioner, Amherst, to the Commissioner of the Tenasserim Division,—No. 610-18—18, dated the 27th May 1891.

I HAVE the honour to submit herewith the Annual Report of the East Salween Forest Division for the year 1890-91, received by me from Mr. Hauxwell, Deputy Conservator of that division, on the 25th instant.

2. The report is simply a record of work done. All financial matters are treated of and compiled in the Attaran and Agency Report already submitted to you.

3. It is unfortunate that the proposed *padauk* reserves in the Haungtharaw valley still remain unsettled owing to the fact that the Deputy Commissioner, Amherst, has been appointed Settlement Officer for the purpose. I went into the subject with Mr. Hauxwell and found I should be away *at least* a fortnight. I could not well leave my headquarters for that long period and there the matter stands. The work cannot under any circumstances be carried out during the monsoons.

4. The forest survey appears to have made good progress in this division, seeing it was commenced only late in the season. It should be completed during the next field season.

5. The Deputy Conservator, in referring to the case of fradulently obtaining possession of a Government elephant, is wrong in stating that one accused was discharged for want of evidence; he was discharged because he had clearly committed no offence: the Indian Penal Code was strained to apply to the case.

6. I have not been able to visit any of the reserves in this forest division.

Remarks by Lieutenant-Colonel C. B. Cooke, Commissioner of the Tenasserim Division, on the Report of the Forest Administration of the East Salween Division for the year 1890-91,—dated the 2nd June 1891.

Area of reserves.

1. There are 12 reserved forests in the division, having an aggregate area of 307 square miles. The proposed padauk reserves in the Haungtharaw valley are still unsettled. They comprise five tracts of an approximate area of 52 square miles, notified on the 26th February 1890. The Deputy Commissioner of the Amherst district was appointed Forest Settlement Officer, but has not had leisure to visit these forests for the purpose of holding the necessary enquiry.

Survey.

2. A small party of the Forest Survey Department has been employed from the 1st January to the end of March in the Thaungyin valley in the survey of reserved forests. The Divisional Officer reports that 130 miles of boundary were traversed and 80 square miles triangulated, as well as 30 square miles partly done.

Breaches of Forest Law.

3. There were five persons prosecuted for offences against the Forest Rules: the case against one person was pending at the close of the year, one was convicted, two were acquitted, and the offence against one person was compounded by the equivalent of a cash payment of Rs 30.

Yield and working.

4. There were 13,932 logs of teak and other woods extracted and brought to Moulmein by Government agency during 1890-91. These logs measured 7,773 tons. The reserved and unreserved timber extracted under licenses measured 2,503 tons and realized Rs. 6,806. The Deputy Conservator of Forests remarks there was a large "falling" off in the extraction of thingan "boat hulls, which are becoming" scarce and difficult of extraction.

Financial results.

5. These are said to be given in the Attaran and Agency Divisional Accounts.

From Captain T. G. Johnson, Deputy Commissioner, Amherst, to the Commissioner of the Tenasserim Division,—No. 591-18—11, dated the 24th May 1891.

I have the honour to forward a copy of the Forest Report of the Kado Division for the year 1890-91, with the following brief remarks.

1. The number of prosecutions for the breaches of the Forest Law appear to be large and must take up a great deal of the time of the Deputy Conservator of Forests, especially as in many of the cases the accused are represented by counsel. Now that there is an intelligent Magistrate at Zathabyin it may be possible to hand over some of the cases to him.

2. The revenue derived from reserved woods, such as *thingan* and *pyinma*, as per paragraph 15 of the report, appears to be small, considering how much these woods are used locally and in the province generally.

3. The drift operations appear to have been supervised with success and the decrease n the revenue is satisfactorily accounted for, considering that a large percentage of the people employed in collecting drift are bad characters from different districts. Tthe reported crime among these persons has been small.

4. The subject of acquisition of land for extension of Kado depôt, for which a provision of Rs. 8,000 was made, is now engaging my attention and will be taken up during the monsoons.

Endorsement by Lieutenant-Colonel C. B. Cooke, Commissioner of the Tenasserim Division,—No. 2546-785, dated the 3rd June 1891.

Forwarded in original to the Conservator of Forests, Tenasserim Circle.

From W. N. Baines, Esq., District Superintendent of Police, in charge, Salween District, to the Commissioner of the Tenasserim Division,—No. 1641-16, dated the 29th May 1891.

In accordance with Forest Department Resolution No. 3C., dated the 17th February 1891, I have the honour to submit herewith Annual Report of the Kado Division for the year 1890-91, together with statements annexed, for information.

Endorsement by Lieutenant-Colonel C. B. Cooke, Commissioner of the Tenasserim Division,—No. 2547-785, dated the 3rd June 1891.

Forwarded in original to the Conservator of Forests, Tenasserim Circle.

Remarks by Lieutenant-Colonel C. B. Cooke, Commissioner of the Tenasserim Division, on the Report of the Forest Administration of the Kado Division for the year 1890-91,—dated the 3rd June 1891.

Breaches of Forest laws.

1. The number of prosecutions for breaches of the Forest laws is very large. In 120 cases 145 persons were prosecuted before the Magistracy. The Deputy Conservator in his capacity as a 2nd class Magistrate dealt with 141 persons, of whom 137 were fined Rs. 2,908 and 17 canoes were confiscated; the remaining four persons were convicted, but released on appeal to the District Magistrate; four persons were fined by the Myoôk of Bilin Rs. 155. Twenty-one cases involving 43 persons were departmentally compounded and Rs. 540 accepted as compensation.

Yield and working.

2. The teak and pyinma logs extracted by Government agency measured 947 tons (3,982 logs), and those sold realized Rs. 11,569, there being still on hand 56 logs of pyinma. The extraction of this timber cost Rs. 5,404, so the balance in favour of the department is Rs. 6,165, besides the stock left. The revenue realized from reserved and unreserved timber extracted under permits was Rs. 7,723-7-9.

Drift operations.

3. The drift operations in this division are on a large scale and are given in detail in paragraphs 20—22 of the Report. The net profit to the department was Rs. 25,766-6-7. The provisions of Chapter VII of the Forest Act are necessarily severe, but in a river like Salween, where logs have to be floated down singly, it is not difficult for a maliciously disposed person to cause his enemy heavy pecuniary loss by supermarking the latter's timber. Licensed salvers also have a strong pecuniary interest in doing so, and for the most part the Deputy Commissioner says they are men of bad character.

Foreign teak.

4. The following figures show the quantity of foreign teak timber on which duty was paid at Kado during the past four years:—

Year.	Number of logs.	Tons.	Value.	Duty realized.
			Rs.	Rs.
1887-88	158,346	140,908	56,98,267	28,506
1888-89	157,413	156,489	82,48,112	41,252
1889-90	55,048	36,852	19,85,900	1,39,014
1890-91	108,284	65,678	26,50,318	1,85,539

The above figures show in some measure the extent to which the trade in foreign teak by the Salween river has been affected by raising the duty from ½ to 7 per cent. *ad valorem*. The full effect, however, of this increased duty will not be apparent until 1892-93, when the whole of the timber purchased under the former conditions may be assumed to have been floated out of the forests. It is said that the foresters' transactions in foreign teak during 1890 were about four lakhs less in value than in previous years, and the Deputy Commissioner of the Salween district has informed me that the Karens of that district had keenly felt the inability to hire out their elephants as in former years, and that their power of purchasing imported goods had greatly diminished. The increase in the number of logs on which duty was paid does not, I fear, indicate a revival of the timber trade, but rather shows that those who have lent money on timber, finding that the margin of safety was rapidly decreasing, have insisted on their creditors clearing the timber and satisfying their claims, though at a heavy loss in most cases.

Officer in charge.

5. The duties of the Deputy Conservator of Forests of the Kado division are very heavy and, as far as I know, they have been well carried out by Mr. Weston during the past year.

Remarks by the Deputy Commissioners, Tavoy and Mergui, on the Report of the South Tenasserim Forest Division for the year 1890-91.

Read and forwarded to the Deputy Commissioner, Mergui.

Tavoy:
The 15th May 1891.

T. M. Jenkins,
Deputy Commissioner.

Read and forwarded to the Commissioner of the Tenasserim Division.

Mergui:
The 21st May 1891.

H. G. Batten,
Deputy Commissioner.

Remarks by Lieutenant-Colonel C. B. Cooke, Commissioner of the Tenasserim Division, on the Report of the South Tenasserim Forest Division for the year 1890-91,—dated the 2nd June 1891.

Area of reserves.

1. There are 860 square miles of reserved forests in this division, namely, 560 square miles in the Tavoy district and 300 square miles in the Mergui district. There were no proposals for the formation of new reserved tracts, and the inspection of the forests at the sources of the Lenya river by the Forest Officer during the past year did not apparently disclose the occurrence of pyinkado trees in sufficient numbers to justify special conservation. The area is said to be uninhabited.

Breaches of the Forest Rules.

2. There were 28 cases of breaches of the Forest Law prosecuted before the Magistracy; in those cases 40 persons were implicated, but against 28 only were convictions obtained. The large number of acquittals has not been explained. The prosecutions in the Tavoy district were principally for using unlicensed sawpits. There were 20 cases implicating 34 persons compounded departmentally on the receipt of Rs. 311 as compensation; all were petty cases.

Experimental garden at Mergui.

3. The report of the experimental garden at Mergui is interesting. This garden is maintained partly by the Forest department and partly at the expense of Provincial funds. The *Hevea Braziliensis*, from which para rubber is obtained, appears to be a success, and it seems a pity that such a large number of seedlings (11,500) have been allowed to grow so large that they cannot now be transplanted. The plants which have been put down in the jungle are said to have a more healthy appearance and greener look than those in the open. The particulars regarding other exotics do not call for any special comment.

Liberian coffee.

4. The area under Liberian coffee is 1·95 acres: the plants were attacked with leaf disease, but measures were taken to check the disease and by the end of the year it had disappeared. The crop yielded 145·7 viss of coffee, and the experiment shows that coffee will grow and bear well in the Mergui district, but it is on too small a scale to satisfy intending planters. Some 20 acres at least should be brought under coffee.

Vanilla.

5. The vanilla pods referred to in the Conservator's report of last year (paragraph 40) matured in August-September 1890 and were cured. Mr. Ingram has given a detailed account of the various methods of curing vanilla, and the measure of success that has attended his efforts is due to the painstaking manner in which he has gone into the question and has collected all the available information on the subject. It will be interesting to know whether the pods which were forwarded to the Conservator in January 1891 have been favourably reported on.

Receipts and disbursements on account of experimental garden.

6. The receipts from the sale of coffee amounted to Rs. 334, while the expenditure on the whole plantation and garden amounted to Rupees 1,806-12-11, of which Rs. 593-14-5 is borne from provincial revenue.

Yield and working.

7. The Forest department extracted 398 logs during the year, of these 394 were pyinkado.

The reserved timber worked out by purchasers measured 2,553 tons, on which a revenue of Rs. 3,514-2-0 was realized, to which thingan and kaunghmu, extracted for boat hulls, contributed Rs. 2,733-2-0.

There were 107 boat hulls, valued at Rs. 1,10,750, exported from Tavoy during the last five months of the year.

The unreserved timber extracted realized Rs. 10,344.

Minor forest produce.

8. The only point which appears to call for comment is the new system under which licenses for extracting wood-oil are granted in the Mergui district. The system is described in paragraph 53 of the Forest Officer's report.

The areas within which the kanyin tree is known to occur in considerable quantities are demarcated and the right to extract wood-oil under certain conditions is put up to auction. After some opposition these licenses were sold for Rs. 1,848, and this year (1891-92) they were keenly competed for and realized Rs. 4,125.

In 1889-90 the wood-oil licenses in the Mergui district fetched less than Rs. 800. The system should be extended to the Tavoy district, for not only is it more remunerative to the State, but the conditions of License No. X are such as to conduce to the better conserving of the forests.

The remarks made in the case of other reports as regards minor forest revenue collected by Deputy Commissioners apply to all cases. The Forest Officer is no doubt right in claiming Rs. 350 collected by the Deputy Commissioner of Mergui for the license of collecting honey, beeswax, &c., as an item of minor forest revenue. The exports from Tavoy contain among other items 518 cwt. of cardamoms, valued at Rs. 29,743: this is a legitimate source of forest revenue, and the right of collecting this spice has been sold this year in Tavoy; it should, I think, be also sold in Mergui.

Financial results.

9. The revenue of this division amounted to Rs. 22,853 and there was an expenditure of Rs. 15,463, leaving a surplus of Rs. 7,390.

From Captain T. G. JOHNSON, Deputy Commissioner, Amherst, to the Commissioner of the Tenasserim Division,—No. 590-13—10, dated the 24th May 1891.

I HAVE the honour to forward herewith the Annual Report of the Attaran and Agency Forest Division for the year 1890-91, together with a map and annual statements.

The remark of the Deputy Conservator, "as regards teak the Attaran has almost ceased to be productive," embodies a well-known fact; the division will only become reproductive when the present lease system has worked out and the future teak localities with a full stock carefully conserved are ready to be tapped. I can also bear testimony to the fact that the hills in the more immediate vicinity of Moulmein are being rapidly denuded of all growth and will need to be brought under some sort of reservation.

2. The difficulties under which the work is controlled are alluded to by Mr. Ferrars. A principal difficulty would be overcome if the vernacular forms of Licenses VI and VII were endowed with the legal authority they now lack.

3. The report does not show clearly the increase or decrease of revenue under the different heads as compared with the previous year.

Remarks by Lieutenant-Colonel C. B. COOKE, Commissioner of the Tenasserim Division, on the Report of the Forest Administration of the Attaran Division for the year 1890-91,—dated the 3rd June 1891.

THIS is a most interesting report by Mr. Ferrars, and I regret that as I have to proceed on circuit tomorrów I cannot comment on it at any length.

2. The observations on the subject of natural and artificial reproduction of teak and other valuable trees are much the same as those made by Mr. Ferrars in his report on the administration of the West Salween division, of which he also held charge during the year, and it is unnecessary for me to repeat what I there said in connection with that report.

3. The imperfections in License Forms Nos. VI and VII appear to be such as to admit of being easily rectified. The licensee should certainly be required to entrust the license to the person actually engaged in felling the trees covered by the license and, like an excise license, it should be produced by the feller when called upon to do so by any Forest, Police, or Revenue Officer. The license should only be in force for a limited period.

4. The accounts of three forest divisions are incorporated in this report.

The surplus of revenue over expenditure amounted to Rs. 31,401, or a falling off of Rs. 1,55,675 as compared with the surplus of 1889-90. This falling-off is attributed to the conspicuous fall in the teak market and to short delivery of timber by contractors owing to the light rainfall of 1890.

From W. N. BAINES, Esq., District Superintendent of Police, in charge, Salween District, to the Commissioner of the Tenasserim Division,—No. 1641-14, dated the 29th May 1891.

IN accordance with Forest Department Resolution No. 3C., dated the 7th February 1890, I have the honour to submit herewith Annual Report of West Salween Division for the year 1890-91 for information.

Endorsement by Lieutenant-Colonel C. B. COOKE, Commissioner of the Tenasserim Division,—No. 2553-735, dated the 3rd June 1891.

FORWARDED in original to the Conservator of Forests, Tenasserim Circle.

Remarks made by Lieutenant-Colonel C. B. COOKE, Commissioner of the Tenasserim Division, on the Forest Report of the West Salween Division for the year 1890-91,—dated the 3rd June 1891.

Natural reproduction.

1. This report shows clearly that the measures that have been adopted for the reproduction of teak and other valuable trees have not been attended with success. The remarks in paragraph 10 in regard to "Natural reproduction" are interesting and would be more instructive had the Forest Officer suggested what measures of conservancy he would recommend in place of the present minimum girth of trees to be felled, which, he points out, assumes a condition of things that does not exist. The valuable trees are being exterminated and valueless ones take their places. I think neither the raising of duty nor the limit of girth is likely to prove successful in conserving valuable trees, and that the only true method of conservancy that will benefit future generations is to close certain forests against all felling and to do away with prepaid trade licenses. This may affect the revenue of the Forest department, but any thing short of that does not, I think, amount to forest conservancy.

Plantations.

The report deals in an introductory chapter with the subject of plantations. There are apparently 828 acres of teak plantations in five reserved forests. The average number of plants varies from 914 plants per acre in the Mewaing forest to 408 plants per acre in the Bilakatkyi reserve, on the whole area the average being 551 plants per acre, which has been planted out and weeded at an average cost of Rs 6-15-8 for plants and weeding during 1890-91. The Forest Officer proposes that the rows of plants should be 99 feet apart as a protection against fire and remarks that, though "the species teak shows signs of adaptation to forest fires second only to those of thayin," the failure to ensure protection of young plantations for four consecutive seasons might render the whole undertaking futile.

Yield and working.

8. There were 5,400 teak logs extracted by Forest departmental agency during the year; of these 3,877 were from fire-reserved forests. There were also 103 logs of pyinma extracted. The reserved and unreserved timber removed under Trade permits was 1,016 logs, measuring 1,193 tons, and realized Rs 1,956-6-0 as revenue. The financial results are incorporated in the accounts of the Agency division.

G. B. C. P. O.—No. 1887, B. S., 18-8-91—300.